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ABSTRACT

Writing to Read is an instructional system with a language experience approach to developing early writing and reading skills for primary children. Designed for a laboratory setting, the system consists of computerized phoneme instruction, 10 student workbooks, and language development activities that emphasize writing as a preliminary activity to reading instruction. This formative evaluation documents the 1983-84 piloting of the Writing to Read system in 14 elementary and Early Childhood Education Centers in the Portland Public Schools, Oregon. Data were collected from: (1) program descriptions covering system management, Writing to Read stations, classroom adaptations, relation to the rest of the language arts curriculum, and teacher or building coordinator roles and responsibilities; (2) on-site observations of student and teacher behaviors; (3) monthly classroom progress records; (4) teacher opinionnaire; and (5) principal interviews on 14 topics. The evaluation recommendations for the Curriculum Department include: (1) clarifying the place of Writing to Read in the language arts program; (2) establishing pupil readiness criteria; (3) recognizing the self-management dimension and its effect on student outcomes; and (4) evaluating Writing to Read with alternative language lab systems. The appendices contain the data collection instruments, program descriptions, principals' comments, and classroom progress graphs. (BS)

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1983-84 EVALUATION REPORT

WRITING TO READ

IN THE PORTLAND PUBLIC SCHOOLS

Research and Evaluation Dept.
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Portland, Oregon
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November, 1984

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Evaluation Report on

WRITING TO READ

Pilot Implementation
1983-84

November, 1984

Department of Research and Evaluation
Portland Public Schools
Portland, Oregon

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INTRODUCTION

Writing to Read is an instructional system which provides a structure for a language-experience approach to the development of early writing and reading skills for primary children.

The Writing to Read system has three parts: (a) a computer-based program which provides direct auditory and visual instruction in 42 phonemes, (b) a set of 10 student workbooks which provide opportunities for practice in combining the phonemes previously introduced by the computer, and (c) language development activities which include the use of typewriters, a listening library, phonemic games, and other supplementary language experiences (which teachers provide to support and enhance student skill development in writing as a preliminary activity to learning to read).

Writing to Read is most accurately described as a "preliminary" instructional supplement, because it is designed to precede formal basal reading instruction and more traditional approaches to language and writing development for primary students. According to the publisher, system effectiveness is enhanced by confining its use to a laboratory setting which remains free of competing methodologies for writing and reading instruction.

The system was piloted in 14 elementary and Early Childhood Education Centers in the Portland Public Schools during the 1983-84 school year. Though this was the second year of a national field-test of the system, Writing to Read as implemented in the Portland District remains developmental. Portland teachers who participated in the pilot contributed extensively to the on-going development of Writing to Read, and shared a continuing dialogue with the publisher. The Curriculum Department provided leadership for the pilot project to add another dimension to the District's primary programs, which while emphasizing language experience, more often present instruction in a readiness-to-reading-to-writing sequence. Writing to Read reverses the traditional sequence and supports writing experiences antecedent to reading instruction. The long-range goal for student participation in the Writing to Read system is improved reading achievement and writing ability at the primary level.

The publisher has not yet clearly identified readiness requirements, most appropriate grade-level use, or the best allocation of time for the total delivery, so the criteria for optimal system-student fit in the continuing use of Writing to Read are yet to be determined. The Portland Public School District's coordinator of the Writing to Read pilot project worked closely with participating schools to identify teacher and principal concerns on a regular basis during the 1983-84 school year. The District's coordinator facilitated communications between and among the pilot schools in order to support reasonable system adaptations, and to provide teachers an opportunity to share curriculum developed to support the supplementary language component of Writing to Read as well as to exchange information about effective building-level implementation procedures.

The Research and Evaluation Department was assigned the task of evaluating Writing to Read after it had been selected and procured by the Curriculum and Data Processing Departments. In the Portland Writing to Read pilot project the diversity of implementation provided a favorable setting for identifying the possible strengths and weaknesses of the system's methodology. As no comparative data on student learning outcomes attributable to the system or any of its components were available during the 1983-84 pilot year, the Research and Evaluation Department's task was essentially one of documenting information about Writing to Read in operation, and about teacher and principal perceptions of the benefits of the system for primary-level students' reading and writing.

DESCRIPTION OF THE WRITING TO READ SYSTEM

Theoretical Base

The theoretical basis of Writing to Read assumes that the activity of writing, that is--composing--best precedes reading. Because children come to school with an informational and experiential content as well as a wide range of fluency in spoken language, the next most direct step, according to the Writing to Read philosophy, is toward print. Since most young children can encode messages verbally, writing is a extension of their already-developing communication skills.

According to the developer of Writing to Read, children develop a higher-level awareness of the sounds and words they pronounce in their everyday speech when they have early writing experiences; this awareness is considered a prerequisite to reading. Therefore, opportunities to develop facility with phonemes should lead to a conscious awareness of the connection between sounds children naturally speak and the letters and words which represent those sounds in print. Providing students an awareness of phonemes allows them to figure out combinations of letters to represent words they can already speak. Writing to Read holds that an emphasis on the process of this instructional strategy--from phonemic learning to writing--will produce not only better writers, but ultimately better readers.

According to the developer of Writing to Read, John Henry Martin, the experiences of the system are intended to allow children to understand

> "that language spoken, heard, written and seen is all one piece. They think of the words they want to say. Then they say them, listening carefully so they can write the print symbols that correspond to their speech sounds. Then they type their words. Finally, they can read their words."[1]

---

[1] From "The Phonemic Spelling System of the Writing to Read Program," by John Henry Martin, excerpts from the Teacher's Manual.

Instructional Method

The Writing to Read system provides direct instruction in phonemic learning with the computer and reinforcement with a correlated workbook called the Work Journal. Typewriters, listening tapes, games, and other writing and language activities (planned and prepared by the classroom teacher) provide the language-development component required to fully support the Writing to Read system. It is recommended that Writing to Read operate in a language-lab setting separate from the regular classroom, and that classroom teachers bring their regular classes to the lab for one hour each day.

The Writing to Read Lab

According to the Teacher's Manual, the lab setting of Writing to Read should include a variety of interrelated and complementary stations at which students can pursue the continuum of "think-say-listen-write-type-read" language activities. The three parts of the Writing to Read system--Computer, Work Journal and supplemental writing and language activities--are designed to provide an integrated language experience for children working in the lab. Computer and Work Journal stations are required to present the direct instruction in phonemes which can be extended and practiced in a variety of other ways according to the materials and activities the classroom teacher has prepared and/or collected for use in the lab. The vendor provides typewriters, a listening library, and two games to support the language-development component of the program.

The Computer and Work Journal are key stations because they deliver direct instruction in phonemes. Supplementary activities or stations consistent with the phonemic basis of the Writing to Read system, and which support writing before reading, are encouraged. Suggested supplemental activities are: (a) sound/letter recognition games, (b) activities for re-combining learned sounds to make new words, (c) decoding exercises, and, if necessary, (d) stage- appropriate activities such as cutting and pasting, sand-paper letters, and so on. Students who might have difficulty with the computer-based instruction or Work Journal activities might attend those stations on alternating days; students who finish that portion of the system quickly may spend extended time at the supplementary language-development stations in the lab.

Table 1 presents typical Writing to Read stations with descriptive activities recommended for each.

Table 1

Writing to Read Stations

	STATION	ACTIVITY	DESCRIPTION OF CLASSROOM VENDOR MATERIALS	TEACHER MATERIALS
REQUIRED	Computer	Progress through 10 phonemic cycles: cycle words, Mastery Tests, Make Words exercise; Silly Sentences, Games	IBM PC cycle software	
REQUIRED	Work Journal	Practice with phonemes in related workbook; initial lessons taped for instructional guidance	10 IBM Work Journals, corresponding tapes	
SUPPLEMENTARY	Typewriter	Exploration, copying, free composition	IBM selectric typewriters	Learning activities and supplementary materials selected or developed by classroom teacher
SUPPLEMENTARY	Listening	Listening to story tapes and following in books	IBM-Selected 15-title library	
SUPPLEMENTARY	Composing	Drawing pictures, dictating stories, copying, free composing		
SUPPLEMENTARY	Game	Playing games to reinforce letter-sound associations	IBM Make Words and Phonemic Bingo Game	

Optimal lab operation calls for all stations to be used on a daily basis; while all children may not have time to attend each station, some students are expected to participate at all stations during each hour of the lab's operation. Recommended movement through the stations is by pairs, and after the daily requirements of Computer and Work Journal, students should be involved in a "free flow" through the other station activities. Classroom

teachers who accompany their classes to the lab each day support the process set in motion by the Writing to Read system when they provide additional language-experience station activities, and encourage, nurture, and value the free writing produced by their students. The developer suggests that the atmosphere of the Writing to Read lab be "language rich," calm but industrious, with stations and material well-defined and organized and with student writing encouraged and extensively displayed.

Instructional Media and Materials

Each Writing to Read lab is equipped with three IBM Personal Computers, six IBM selectric typewriters, and six cassette recorders for Work Journal and taped listening activities.

There are four kinds of instructional materials provided by the Writing to Read system: computer software, the Work Journals and accompanying tapes, the listening library, and two games.

Computer Software. The instructional software for the computers provides instruction in encoding and decoding 42 phonemes through ten cycles, each cycle containing three words. Figure 1 presents the words and phonemes presented within the software program, in the order of their presentation.

Figure 1

Words and Phonemes Presented in Writing to Read Cycle Software

CYCLES 1 THROUGH 5

	Words		Phonemes (Introduced)
			a c d f g i sh o t
Cycle 1	cat		
	dog		
	fish		
			a b c d e f g i sh n o p s t u
Cycle 2	pig		
	sun		
	bed		
Cycle 3	rabbit		r
	leg		l
	thrē	(three)	th, ē
Cycle 4	man		m
	snāk	(snake)	ā, k
	vās	(vase)	v
Cycle 5	jump		j
	hand		h
	wagon		w

CYCLES 6 THROUGH 10

	Words		Phonemes (Introduced)
Cycle 6	yard		y
	moon		oo
	kĪt	(kite)	Ī
Cycle 7	zipper		z, er
	straw		aw
	smōk	(smoke)	ō
Cycle 8	turtl	(turtle)	ur
	chair		ch, air
	hous	(house)	ou
Cycle 9	oil		oi
	hors	(horse)	or
	whēl	(wheel)	wh
Cycle 10	ūniform		a b c d e f g h i j k l m ā ar ē er Ī aw ō or ū oi ch ou sh oo th ur wh air n o p q r s t u v w x y z
	book		
	butter		

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Each instructional cycle contains drills on three words, a Mastery Test, and a Make Words exercise which allows students to practice combining phonemes to create new words. Each lesson within the cycle presents one word. As students proceed through each cycle, their correct responses appear on the screen. If students answer incorrectly, no response appears. Only in the Make Words section of the software will a cue appear when students have either responded incorrectly or not at all.

Another set of software which accompanies the Writing to Read system includes Silly Sentences, in which words learned in cycles are presented in a sentence as opposed to single-word format. The sentences are humorous, and they provide models of grammatical sentence structure with appropriate capitalization and punctuation. Within each Silly Sentence students can find cycle words they have already learned. It is recommended that Silly Sentences software be interspersed throughout the cycle presentations and followed by sentence writing in the student Work Journals.

Finally, two computer games, "Cat and Mouse" and "Rabbit and Turtle" are provided to encourage speedy and accurate phonemic responses to entertaining and colorful visual/aural stimuli. Both Silly Sentences and the two computer games are designed to be used repeatedly according to teacher judgement of student need.

The Writing to Read software is often described as "interactive." While it does allow students to participate in a multisensory learning experience with color graphics and animation, plus sound, the nature of student response is essentially drill and practice, though students respond in different modes, i.e. by repeating sounds, by typing letters, by clapping, or stomping their feet. Technically, the software is interactive in that it does not run on its own without interruption, but requires a response to activate the program.

Work Journal. The "Work Journals" are essentially workbooks in which students are provided reinforcement opportunities by combining phonemes to produce words which have been introduced previously in the computer software instructional cycles. The back cover of the Work Journal presents a schematic which allows for a record of student movement and participation in the stations of the Writing to Read lab. Students are encouraged to learn to maintain these records themselves as they move through the system.

Listening. A library of 15 taped literature selections with corresponding sets of student books is provided so that students may listen and follow along at a designated listening station.

Games. A set of phonemic cards are provided for students to use in a Make Words game. Phonemes are also printed on a set of larger game cards so that students can play Bingo with phonemes.

The Teacher Role in Writing to Read

The Writing to Read Teacher's Manual provides a descriptive guide to the system philosophy with suggestions for implementation and use of media and materials provided by the publisher. Chapters V and VI in the Teacher's Manual present 27 suggestions for writing, and 51 language-development activities which may be used to complete the system delivery. A bibliography is provided for teacher reference.

While the role of the teacher is one of "instructional leader" in terms of management and planning for student activities in the lab, in fact, the teacher's role extends significantly to selection and/or development of curricular activities at all four supplementary Typewriter, Listening, Composing, and Game stations.

The Teacher's Manual generally describes Writing to Read as a system, which provides, in addition to the Computer and Work Journal, a structure or methodological outline which teachers use to guide their selection or development of supplementary language activities. In a sense, Writing to Read allows or requires teachers to build their own programs according to the language experience theory.

PORTLAND PUBLIC SCHOOLS IMPLEMENTATION OF WRITING TO READ

Participating Schools

Fourteen schools including a total of 67 classes participated in the Portland Public Schools Writing to Read pilot during the 1983-84 school year.

The total number of participants in the Writing to Read pilot was approximately 1,500 students. Two-thirds were kindergartners, and one-third first graders. Sixty percent of the Writing to Read students attended Early Childhood Education Centers (ECEC's) and forty percent of the participating students attended non-ECEC schools.

Two of the 14 participating schools, King ECEC and Vernon ECEC, had two Writing [illegible] labs; the other 12 schools had one lab per building.

Table 2 identifies schools, grade level configurations, numbers of students participating in Writing to Read, as well as beginning dates for system implementation.

Table 2

Schools Participating in the Writing to Read Pilot
in Portland Public Schools, 1983-84

SCHOOL	BEGINNING DATE	GRADE LEVEL: NUMBER OF STUDENTS AM CLASSES	PM CLASSES
Beach	11-83	K:28 K:28	K:27 K:28
Boise ECEC	11-83	1:22 2:14 2:13	1:18
Buckman	11-83	K:32 1/2:23	K:26
	3-84	1:7	
Chapman	10-83	K:26 K:25 K:23	1:25 1:26
	3-84	K:17	
Eliot ECEC	11-83	1:25 1:26	K:27
Humboldt ECEC	12-83	K:19	K:20
Irvington ECEC	11-83	K:21 K:23	
Kenton	11-83	K:22 1:23	K:20
King ECEC	11-83		1:24 1:27 1:25 1:23
	1-84	K:26 K:24 K:23 K:24 K:25 K:27	
Richmond	11-83	1:25 1:25	Primary Sp. Ed.-12
	1-84	K:30	K:26
Sabin ECEC	11-83	K:16 K:26 K:27 1:16 Jr Prim:17	K:26 K:26
Sunnyside	11-83	K:24 1:29	K:23 1:27
Vernon ECEC	11-83	K:23 K:24 K:22 K:22	K:23 1:26 1:27 1:26
Woodlawn ECEC	11-83	K:26 K:26 K:25	K:25 K:25

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Writing to Read Personnel Training and Responsibilities

District Coordinator of Writing to Read. A curriculum administrator and an early childhood education specialist from the Portland Public Schools received 40 hours of inservice training with the vendor of Writing to Read. These individuals conducted the initial inservice training for all other Portland Public Schools personnel. The publisher's own educational consultant was available during the initial orientation and inservice sessions.

The Early Childhood Education Specialist was designated District coordinator for Writing to Read. Support was provided from central Curriculum administration, and by access to a local publisher's representative who acted as liaison with the vendor for this first year of implementation in Portland. The District coordinator facilitated communication among these major groups: (a) building personnel involved in the implementation of Writing to Read, (b) central administrative personnel in Curriculum, Data Processing and Research and Evaluation Departments, and, (c) the local publisher's representative.

The District coordinator facilitated on-going responsive inservice to all personnel involved in Writing to Read. In addition to providing leadership for Writing to Read, the District coordinator also facilitated the pilot implementation in terms of the total primary language arts curriculum, and District-adopted programs. The District coordinator was responsible for District-wide administrative orientation sessions and participated in various parent and community orientations at participating schools all during the school year. The District coordinator facilitated an exchange of information between participating teachers, building Writing to Read coordinators and computer lab aides, and the publisher's representative, encouraging continuous feedback from sites, and transmitting information, questions and concerns to the publisher on a regular basis. In a spring memorandum to participating teachers, the District coordinator presented reponses to teachers' chief concerns and suggested acceptable adaptations to the program within the guidelines of the Writing to Read philosophy and in consonance with District curriculum for language arts and reading development. (See Appendix A for a copy of this memorandum.)

Building Coordinators. Each building principal who opted to participate in Writing to Read assigned building coordinator responsibilities to local building support personnel. Building coordination responsibilities included attendance at regular informational meetings with the District Writing to Read coordinator, general monitoring of building pilot project implementation, and on-going support to participating teachers for the language-development component of Writing to Read. In addition, building coordinators usually conducted regular meetings with their Writing to Read staff and provided continuing communication of teacher concerns and suggestions for program improvement to the District coordinator. In the fall of 1983 building coordinators received 24 hours of inservice which included introduction to computer technology, operations, and hands-on experience with Writing to Read system stations. The building coordinators met with the District coordinator of Writing to Read for a two-hour meeting each month to share materials, concerns, and to discuss implementation practices.

Classroom Teachers. Participating classroom teachers attended 16 hours of inservice training prior to program implementation in the fall. The initial training session included a presentation of the philosophy of Writing to Read, and a hands-on lab experience with the stations. An additional 24 hours of inservice was provided in three eight-hour teacher workshops held in November, January and May. Classroom aides participated in 12 hours of the initial teacher inservice.

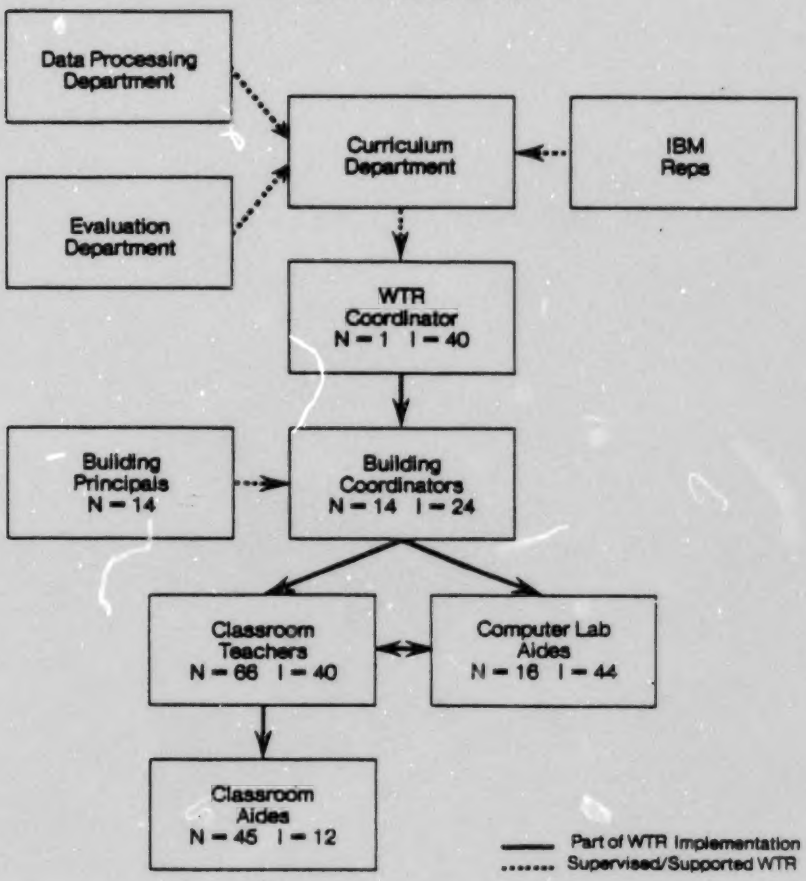
Computer Lab Aides. Each Writing to Read lab was staffed with a computer lab aide whose chief responsibility was to supervise the Computer station; appropriately set up software for student use; monitor, assist and record individual student participation and performance in the software cycles. Computer lab aides provided much of the initial student orientation to the Writing to Read system. The overall maintenance of the lab and hardware was the computer lab aide's responsibility as well. Non-routine maintenance problems were relayed to the Data Processing Department for communication to the vendor.

Computer lab aides participated in 20 hours of inservice training in the fall. One day was devoted to orientation to the computer technology of the Writing to Read system. The remainder of the training provided computer lab aides an acquaintance with the entire Writing to Read curriculum and their role in managing, handling and storing materials. An additional 24 hours of inservice were provided in three eight-hour support workshops in November, January and May.

Figure 2 displays the various levels of District support and training for the pilot implementation of Writing to Read.

FIGURE 2

District and Building Level Support & Training
WRITING TO READ, 1983-84


Data Processing Department
Curriculum Department
IBM Reps
Evaluation Department
WTR Coordinator N = 1 I = 40
Building Principals N = 14
Building Coordinators N = 14 I = 24
Classroom Teachers N = 66 I = 40
Computer Lab Aides N = 16 I = 44
Classroom Aides N = 45 I = 12
Part of WTR Implementation
Supervised/Supported WTR

N = Number of Staff
I = Number of Inservice Hours

EVALUATION OF WRITING TO READ

The Portland Public Schools first year evaluation of Writing to Read is formative in nature. The Research and Evaluation Department documented the 1983-84 pilot activities to describe the implementation of Writing to Read in District elementary and Early Childhood Education Centers. The evaluation was designed to obtain information from teacher, principal and observer perceptions about the benefits of the system for primary-level students in writing and reading development. The overall purpose of the evaluation was to provide information to the Curriculum Department for use in improving the implementation of the Writing to Read system.

There were five sources of Writing to Read data:

I. Program Descriptions.
II. On-Site Observations of Writing to Read.
III. Classroom Writing to Read Progress Record.
IV. Teacher Opinionnaire.
V. Principal's Topic List for Writing to Read.

Example of all instruments utilized in data collection are included in Appendix B.

For this formative evaluation, data collected documented the operations of the Writing to Read labs in all the participating schools, and demonstrated the instructional and administrative acceptance of the Writing to Read system. It has been the intent of this evaluation to gather and consider data specific to the initial implementation of the Portland pilot project.

During this initial year of system implementation, it was not possible to design an evaluation of pupil outcomes for a number of reasons: (a) Published forms of group testing instruments used with primary students are not sensitive enough to measure different students' achievement gains, and, the publishers' norms cannot be used instead of measurement for research purposes,[2] (b) There exists no baseline data, and, (c) Adequate comparisons could not be made, since, at least at the kindergarten level, the curricular practice emphasizes readiness rather than direct instruction in reading and writing.

I. Program Descriptions

Program descriptions were voluntarily provided by 11 of the 14 Writing to Read building coordinators and 37 participating teachers in January, 1984. Two thirds of the teachers who responded taught kindergarten.

Teachers and building coordinators were given a topical outline to guide their responses; the outline was prepared by representatives of the Curriculum and Research and Evaluation Departments. When both teachers and building coordinators from the same school responded, their program descriptions were congruent.

Program descriptions were presented in terms of five topics:

1. System management.
2. Writing to Read stations.
3. Classroom adaptations.
4. Relationship of Writing to Read with the rest of the District language arts curriculum.
5. Teacher or building coordinator roles and responsibilities for the operation of the Writing to Read system.

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[2]During the 1983-84 school year, the Educational Testing Service conducted a second national evaluation of Writing to Read. See Appendix A for a description of the Portland Public School's participation.

Teacher and Coordinator Program Descriptions are found in Appendix C.

1. System Management. Building coordinators described their key responsibilities as fourfold: (a) they provided orientation and coordination for building implementation, (b) they offered continuous support and assistance to meet teacher needs for system organization, materials collection and maintenance, (c) they facilitated communication between the school and the Curriculum and Research and Evaluation Departments, and, (d) they generally supervised the computer lab aides. In two buildings where the computer lab aide served as coordinator, the principal of the school was the supervisor.

While the overall coordination of the Writing to Read system was the building coordinator's responsibility, day-to-day management and monitoring of classroom participation in the lab was a teacher obligation.

Teacher management duties included continuous selection of groups or pairs for station assignment. In most classes, initial pairings were made on the basis of teacher judgment of student ability either by their placement in regular classroom reading groups, or their status in the Writing to Read instructional cycle or Work Journal. With few exceptions, teachers assigned the first station of the day to all participating students.

For most classrooms, the Computer and Work Journal were key stations after which a relatively "free flow" of students to stations of their choosing occurred. In most labs, teachers reported that they suggested or encouraged students in their selection of activity stations. In half the participating schools, some teachers chose to move children through the stations according to specific time periods ranging from 13 to 15 minutes per station.

2. The Writing to Read Stations. All responding teachers reported that the following stations were available in their labs: (a) Computer, (b) Work Journal, (c) Typewriter, (d) Listening, (e) Composing/Language Development, (f) Game.

a. Computer Station

Teachers paired students to learn phonemes and related cycle words at the computers. Because the Mastery Test portion of the software was difficult for some students to pass, teachers used their own judgment about moving children on to succeeding cycles or having them repeat the Mastery portion.

b. Work Journal Station

A third of the responding teachers (12 of 37) found the Work Journal either inappropriate or too difficult for student use. Corresponding cassette tapes were viewed as exacerbating the problems of the Work Journal; they were too slow, it was very difficult to locate a specific child's place in order to correlate the tape and the Work Journal, and the tapes were only available for the first four Work Journals. Teachers explained that the Work Journal station required teacher supervision in order that reinforcement be effective. Many teachers provided additional practice worksheets for the sounds and words presented on the cycles.

c. Typewriter Station

Instead of describing learning activities at the Typewriter station, teachers commented on student affect. Teachers reported that students liked using the typewriters, while others reported that they were seldom selected by students during the time they moved freely through the stations. Teachers posed many questions about how to use the typewriter to enhance original composition.

d. Listening Station

Teachers described their Listening stations in terms of student affect and reported that students enjoyed listening to the stories. Some suggested that some of the Listening Library selections were too advanced for primary children.

e. Composing/Language-Development Stations

Teachers reported that a variety of language-development activities were provided in their labs. The activities were of four general types: (a) stage-appropriate activities, i.e., those which match the student's functional developmental stage (such as cutting, pasting, kinesthetic experiences with letter shapes), (b) writing, (c) reading, and (d) other. Descriptions of these activities are provided in Figure 3.

Figure 3

Language Development Activities Commonly Provided in the Writing to Read Lab

CATEGORY	ACTIVITIES
STAGE-APPROPRIATE	Art and coloring activities, collage Play-dough, clay, puzzles
COMPOSING	A second writing station Writing booklets Language experience stories Chalkboard activities
READING	Library books Alphabet exercises Letter-sound categories
OTHER	Sequencing, categorizing Dot to dot exercises Other computer software Italic handwriting

f. Game Station

The Game station was often not operating because teachers reported they did not have time to prepare suitable materials for the station, or because, in their judgment, adult assistance was required to make the participation in the games instructionally worthwhile.

3. Classroom Adaptations. Teachers uniformly described classroom adaption in terms of student readiness skills. For students lacking required readiness skills teachers adapted Writing to Read in any one of the following ways: (a) by sending students to the lab on a daily basis and working on readiness skills in the lab setting, but not requiring regular student participation at the key stations of Computer and Work Journal, (b) by sending students to the lab for less time--only two days per week instead of the recommended five; or sending them daily, but for only half the recommended time, and, (c) by removing students after their initial 1-2 week experience with planned entry later during the school year after appropriate readiness preparation in a regular classroom setting.

In order to provide for lower-performing children, or those who may have been absent, classroom aides were often assigned to tutor students individually in order to help them pass their Mastery and Work Journal tests. Make-up sessions for absentees, or students who may have been unable to work at the computers due to scheduling constraints, were commonly provided.

4. Relationship of Writing to Read and District Language Arts Curriculum. None of the teachers who provided program descriptions used Writing to Read as their total language curriculum; all teachers included District adoptions in their regular classroom instruction. One first grade teacher, however, did not introduce her children to the District-adopted reading program until they had completed the Writing to Read instructional cycles. The Curriculum Department recommended that participating teachers spend an additional 90 minutes in reading/language instruction in the regular classroom. A description of the relationship of Writing to Read with the District Language Arts Continuum may be found in Appendix A.

5. Teacher Role in Writing to Read. Teachers most frequently described their lab responsibilities in terms of program management during the operation of the Writing to Read system. They monitored the lab, moved among stations providing feedback, encouragement and assistance to their students. In some labs, teachers opted to monitor the lab from one station--most frequently the Work Journal or Composing station--and to work with individuals and small groups there, while informally observing student activities at the other stations.

In order to provide the required system component of supplementary language activities, and to meet special needs, teachers continuously prepared and/or selected a variety of materials for use in the lab.

II. On-Site Observations of Writing to Read

Representatives of the Curriculum and Research and Evaluation Departments prepared a preliminary outline for on-site observations in the Writing to Read labs which included specific and general observations of student behaviors as they worked through the Writing to Read stations, and personnel involvement in system implementation--their numbers, and the nature of their interactions with student participants.

The preliminary outline was used during nine visitations of six different classrooms of Writing to Read. Working with the information procured from the initial observations, expanded and more specific observational checklists were developed for standardized data collection to provide information on: (a) Use of the Computer, by Sex of Student, (b) Student Behavior at the Computer, (c) Student Behaviors at the other Writing to Read Stations, (d) Supervision of the Writing to Read Lab Stations. For every classroom visitation, specific observations were made according to predetermined time periods which were selected based on the lab operations observed during preliminary classroom visitations. Figure 4 describes plans and rationale for specific observations.

Figure 4

Predetermined Plans for On-Site Observations of Writing to Read

PURPOSE OF OBSERVATION	NUMBER/LENGTH PER VISITATION	PREDETERMINED TIME-PERIOD	RATIONALE
Use of the Computer by Sex of Student	One 15-minute observation	10-25 minutes after class begins	Students typically at the Computer Station for 15 minutes. The 10-25 minute period enabled observation of assignments to the computer during more than a single 15-minute segment, and included computer assignments other than the initial ones which were usually pre-arranged in the regular classroom.
Student Behavior at the Computer	Three 1-minute observations	10, 20, 30 minutes after class begins	These observation timelines allowed observations at the beginning, middle and end of different students' work periods at the Computer and other Writing to Read Stations.
Student Behaviors at the other Writing to Read Stations/ Supervision of the Writing to Read Lab Stations	Three 1-minute observations	15, 25, 35 minutes after class begins	

A random selection of 26 Writing to Read classrooms including at least one class in each of the 14 participating schools, were visited during the period from mid-February to mid-April, 1984. The evaluation purpose for the visitations was explained in a memorandum distributed to Directors of Instruction, building principals and building Writing to Read coordinators. Two members of the Research and Evaluation Department staff contacted building coordinators to arrange to visit each selected classroom on three specific occasions. All 26 classrooms were visited. No data were gathered during 15 visitations. Sixty-three total visitations provided data for the evaluation.

Use of the Computer by Sex of Student. Table 3 presents observational data which indicates that boys and girls participated equally in using Computers in the Writing to Read lab.

Table 3

Observed Use of Writing to Read Computers by Sex

STUDENTS	NUMBER OBSERVED USING COMPUTER	NUMBER OBSERVED IN ATTENDANCE	PERCENT
Boys	242	674	36
Girls	201	576	35

Student Behaviors at the Computer. The Computer station in each Writing to Read lab contained places for six students--two at each of the three lab computers. Since the cycle software is programmed with duplicate commands, paired students could take turns repeating or keying the phonemic sounds. Comparative progress in cycles was presumed to provide a relatively easy way of pairing students for their computer and lab activities.

Observations were made to learn what students were doing at the computers, and also to determine the extent of computer use. Table 4 describes what was observed at Computer stations across all 63 visitations to 26 classrooms. The data include not only behaviors of all students (N) who worked at the computers during the observations, but also the numbers of places which

remained vacant during the observations. A smaller N is recorded for the first visitation because the observational instruments were being finalized during nine first visitations. Further explanation of the categories of computer use may be found in the Appendix.

Table 4

Computer Use During Classroom Visitations

COMPUTER USE	FIRST VISITATION N	SECOND VISITATION N	THIRD VISITATION N	TOTAL N
Students On Task	152	204	221	577
Students Respond Aural Cues Only	8	33	18	59
Students Waiting for Adult Assistance	15	19	22	56
Students Looking Away from Computer	4	11	7	22
Students Playing with Equipment	--	2	9	11
Students Talking about Unrelated Activity	--	7	--	7
Other Student Activity	3	--	4	7
No Student at Computer Place	79*	138*	126*	343*

* These N's indicate numbers of vacant computer places.

In order to describe the frequency of actual student behaviors at the computer, Table 5 has been prepared.

The first column describes categories of behaviors observed. For each visitation, numbers of students and the percentage of total students observed involved in each behavior are presented. The final column displays total number of students observed over all three visitations and the percentage of students involved in each of the seven possible categories.

Table 5

Frequencies of Student Behaviors at the Writing to Read Computer Stations

BEHAVIOR CATEGORY	FIRST VISITATION	SECOND VISITATION	THIRD VISITATION	TOTALS
1. On Task	N 152 % 83	N 204 % 73	N 221 % 79	N 577 % 78
2. Responding to Aural Cues Only	N 8 % 4	N 33 % 12	N 18 % 7	N 59 % 8
3. Waiting for Adult Assistance	N 15 % 8	N 19 % 7	N 22 % 8	N 56 % 8
4. Looking away while Computer Operating	N 4 % 2	N 11 % 4	N 7 % 3	N 22 % 3
5. Playing with Equipment	N 0 % --	N 2 % 1	N 9 % 3	N 11 %
6. Talking about Unrelated Activity	N 0 % --	N 7 % 2	N 0 % --	N 7 % 1
7. Other	N 3 % 2	N 0 % --	N 4 % 1	N 7 % 1
Total Number of Students Observed	N 182	N 276	N 281	N 739

Overall, during the 63 total visitations to the 26 classrooms, seventy-eight percent of the students observed at the computers were judged to be engaged on task; they were attending to the computer screen display and responding appropriately to the programmatic commands. Eight percent of the students observed at the computer responded to aural commands only, but did not attend to the monitor. Another eight percent were occupied in transitional management activities, i.e., waiting for their cycle diskette to load, or waiting to be excused to attend another lab station. The remaining four percent of students observed were either looking away from the computer during the observations, playing with the equipment, talking about unrelated activities, or engaged in other off-task behaviors.

During the classroom visitations at which student behavior at the computers was observed, some of the six places at the Computer stations were unoccupied; most of the time, four students worked at the three Computer stations and two places were vacant. Seldom did one computer remain idle. More often, students were observed working singly rather than in pairs so that over all, the computers were used at approximately seventy percent of their intended capacity.

Table 6 displays numbers of students observed at the computers and numbers of places unoccupied.

Table 6

Frequencies of Occupied and Vacant Places at Computer Stations

VISITATION	NUMBER OF STUDENTS OBSERVED (PLACES OCCUPIED)	NUMBER OF COMPUTER PLACES UNOCCUPIED	TOTAL NUMBER OF PLACES AT THE COMPUTER
1st Visitation	N 182 % 70	N 79 % 30	261
2nd Visitation	N 276 % 67	N 138 % 33	414
3rd Visitation	N 281 % 69	N 126 % 31	407
Totals	N 739 % 68	N 343 % 32	1,082

Student Behavior at the other Writing to Read Stations. During classroom visitations, one-minute observations of student behaviors at the other Writing to Read stations were made at three predetermined times during each visitation. If a station was not operating, it was coded "non-operational" and therefore, no student behavioral data was available. Table 7 displays the frequencies of observed operating and non-operating stations in the 26 classrooms visited.

Table 7

Frequencies of Operating and Non-Operating Writing to Read Lab Stations

STATION	OBSERVATIONS OF STATION	
	OPERATING	NOT OPERATING
Computer	N 154 % 100	N 0 % --
Work Journal	N 166 % 100	N 0 % --
Typewriter	N 144 % 90	N 17 % 11
Listening	N 109 % 70	N 46 % 30
Composing	N 135 % 86	N 22 % 14
Game	N 111 % 61	N 71 % 39

The data presented in Table 7 indicate that the two critical stations of Writing to Read--the Computer and Work Journal--were always operating during the one-minute observations of student behavior at the stations. The next most-frequently operational stations were Typewriter and Composing. Listening and Game stations, though operating less often, were still in use in over sixty percent of the one-minute observations.

There is an important distinction to be noted between observation of students working at the Computer Station and observation of student behaviors at the other Writing to Read stations. At the Computer Station, the behavior of each individual student at each of six possible places (two places at each of three computers) was observed. At the other Writing to Read stations, a more generalized group behavior was coded. For example, if there were six students at the Typewriter Station, and four of them were typing original compositions, while two copied cycle words, the behavior at that station was coded "Free Composing." While observer notes contain more specific information about individual student behaviors at the other Writing to Read stations, only a single judgment of the station activity was included in the data analysis.

Table 8 displays the activities observed at the Work Journal, Typewriter, Listening, Composing and Game stations.

Table 8

Frequencies of Student Behavior at Writing to Read Stations: Work Journals, Typewriters, Listening, Composing, Game

	BEHAVIOR/ACTIVITY	OBSERVATION NUMBER (N)	OBSERVATION PERCENT (%)
WORK JOURNALS	Work Journals	142	92
	Related Work Journal Ditto	10	6
	Other	3	2
TYPEWRITER	Free Composition	37	27
	Copying	86	64
	Other	12	9
LISTENING	Listening and Following in Book	96	90
	Other	11	10
COMPOSING	Free Written Composition	69	54
	Free Drawing Composition	20	16
	Copying: Own Work, Dictation	32	25
	Other	8	6
	Letter, Phoneme-Recognition/Combining Games	45	52
	Other	41	48

According to Table 8, during the observations of student behavior at the stations, students at the Work Journal were "on task" approximately ninety-eight percent of the time. Even when observers noted that students were not working in their Journals, it was apparent that teacher-prepared materials in use were reinforcing the phonemes and cycle words in much the same way as the correlated Work Journals.

Most students at the Typewriter Stations were copying--either their own work which they had previously written or dictated, or model words or sentences. During about twenty five percent of the one-minute observations, students did compose freely at the typewriters; about ten percent of the time they were involved in more exploratory kinds of activities.

Ninety percent of the observed Listening Station activity included not only listening to the taped literature selections, but following along with the written narrative in accompanying books.

At the Composing Station, slightly more than fifty percent of the activities observed were categorized as free composing. Twenty five percent of the time, students were copying their own work or dictation which was sometimes accompanied by illustration. Sixteen percent of the observed behaviors were coded as composing stories by pictures only.

Roughly half of the games observed at the Game Station were phonemic recognition/combining activities and the other half were generally classified as stage-appropriate activities such as pattern blocks, puzzles, shape recognition, dominoes, and various art activities.

Supervision of the Writing to Read Lab Stations. According to the implementation guidelines for Writing to Read, the teacher is the instructional leader for system management. The classroom teacher manages student movement through the stations and selects suitable language development activities to meet specific student learning needs. Therefore, for all of the stations in the Writing to Read lab (with the exception of the Computer which provides direct instruction but is managed by the computer lab aide) the teacher is the preferred supervisor.

During classroom visitations, when observers coded one-minute observations of student behavior at the Writing to Read Stations (excluding the computer), they also coded station supervision.

Supervision was judged according to the major responsibility for station maintenance and operation and the observers sought to identify some form of active involvement in the stations operation, be it physical presence, or merely verbal recognition or directions given to students. As instructional leaders in the lab, teachers were responsible for the facilitation of all stations but the computer (which was the responsibility of the computer lab aide.)

Table 9 presents supervision of the stations which were operating during the one-minute observations conducted during classroom visitations. Table 9 provides two kinds of supervisory information: a) the extent of an individual's supervisory role during observed lab operations, and, b) the duration of adult supervision provided for each of the lab stations during the classroom observation.

If supervision percentages are read horizontally, the reader can determine an individual's major supervisory responsibility during the classroom visitations; since the teacher is the instructional leader, it is to be expected that he be identified as chief supervisor of all stations except the computer. If the supervision percentages are read vertically, the reader can determine who provided the most adult supervision at each station during the classroom visitations.

Table 9

Supervision of Operating Stations in the Writing to Read Lab
During Classroom Visitations

SUPERVISOR		WRITING TO READ STATIONS					
		Computer	Work Journal	Listening	Typewriter	Composing	Games
Teacher	N	7	141	69	111	120	63
	%	5	85	63	77	89	57
Computer Lab Aide	N	142	1	16	5	0	21
	%	92	1	15	4	--	19
Classroom Aide	N	0	17	6	5	3	7
	%	--	10	6	4	2	6
Volunteer	N	0	0	0	0	5	1
	%	--	--	--	--	4	1
Other	N	0	0	17	17	3	13
	%	--	--	16	12	2	12
No Supervision	N	5	7	1	6	4	6
	%	3	4	1	4	3	5

According to Table 9, the classroom teacher is the major supervisor for every station but the Computer. Over ninety percent of the Computer Station supervision is by the computer lab aide. When classroom aides were present in the lab, they were more often supervising at the Work Journal Station. Supervision categorized as "Other" included Writing to Read building coordinators, or Chapter I personnel who worked with individual students or groups in the lab. Volunteers performed supervisory roles less than four percent of the time at any station.

III. Classroom Writing to Read Progress Record

Monthly Progress records were maintained by 64 classrooms participating in the Writing to Read implementation, from December through May of the 1983-84 school year. The Monthly Progress records contain two kinds of information: (a) the rate of progress through the ten Writing to Read cycles, and (b)

teacher judgment of student writing level. Cycle progress was recorded on a daily basis by the computer lab aide; writing levels were judged on a monthly basis by the classroom teacher.

Rate of Progress Through Cycles. The progress of students through the Writing to Read cycles is reported in classroom graphs which depict the number of students in daily attendance with their average daily cycle placement represented as a weighted cycle mean (WTD).

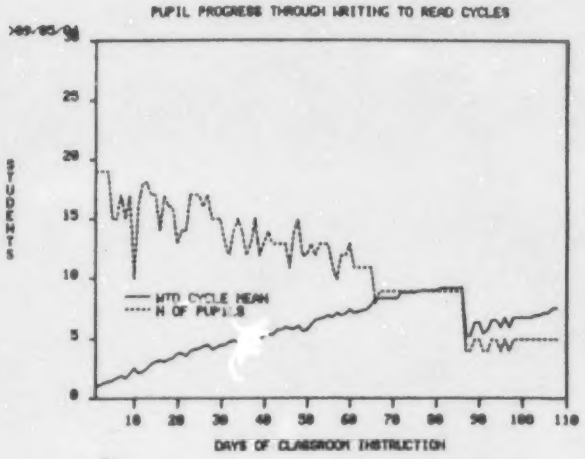
The number of students in each cycle was multiplied by their cycle number, the products were summed, and divided by the total number of students participating to produce a class progress ratio. This ratio was calculated for each day of lab operation (identified as "Days of Classroom Instruction" on the graphs) for every Writing to Read class, December through May, a period of approximately 110 instructional days.

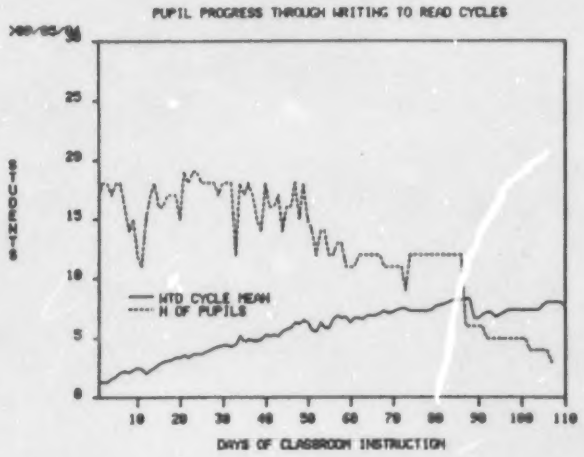
While graphs for 62 classrooms are included in Appendix D, the cycle data shown here include only some of those classrooms where implementation more closely followed the recommendations of the system developers (in terms of hours per day and days per week in the lab). Only classrooms with at least ninety days of recorded participation in the Writing to Read Lab were selected for presentation here.

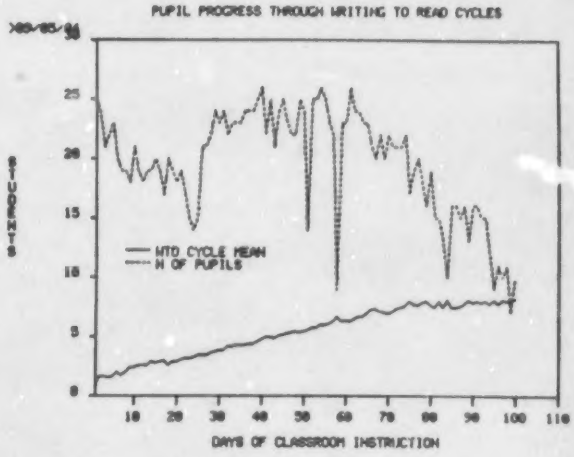
Figures 6A and 6B illustrate the variety of class movement through the cycles for kindergarten students.

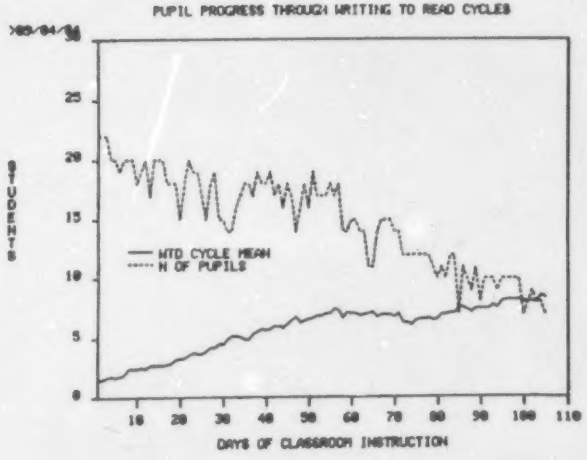
Figure 6 A

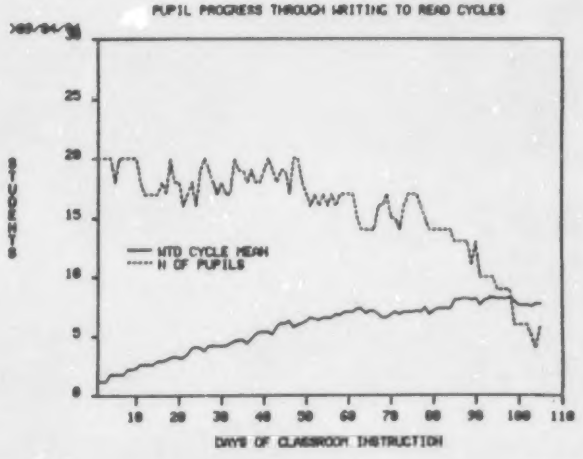
Line Graphs of Five Kindergarten Classes' Progress Through Cycles











Kindergarten classes started in November.

Dotted line - number of students attending that day.

Solid line - Average cycle placement of students that day.

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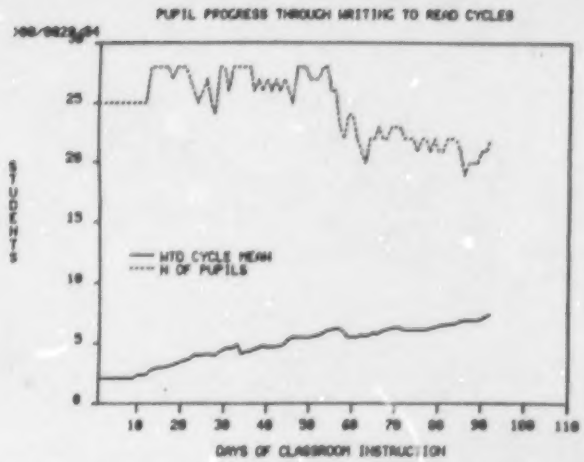
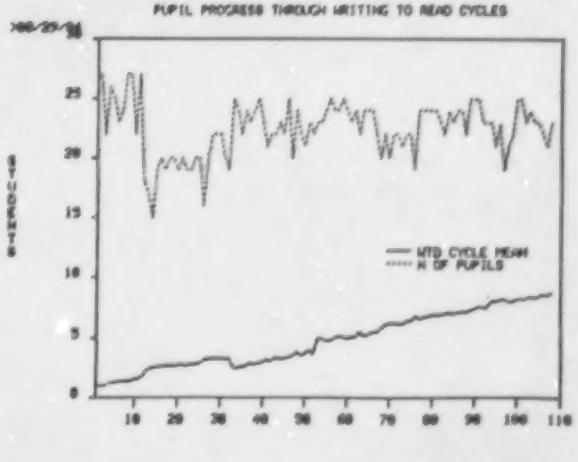
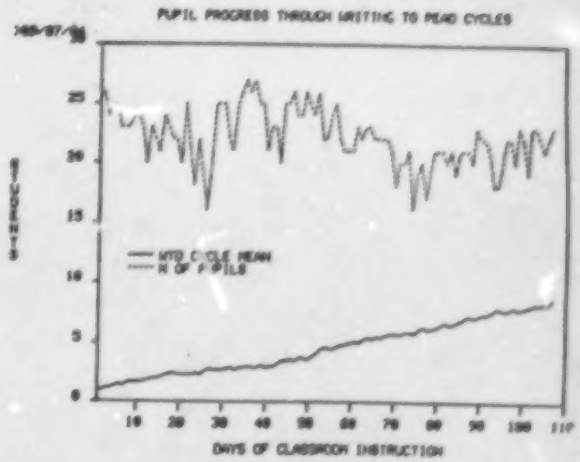
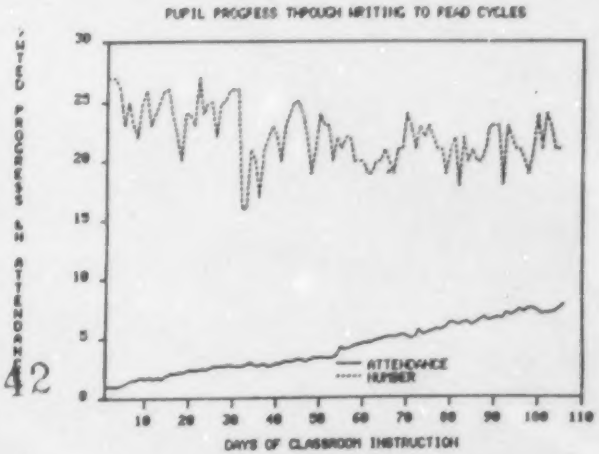
Figure 6 B

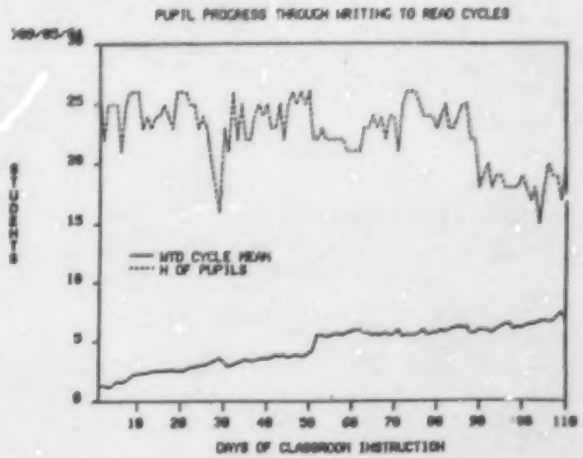
Line Graph of Five Kindergarten Classes' Group Progress Through Cycles











Kindergarten classes started in November.

Dotted line - number of students attending that day.

Solid line - Average cycle placement of students that day.

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As one would expect, in both sets of graphs, the numbers of students in attendance and remaining in the cycles (represented by dotted line) is generally declining, while the average cycle completed (represented by the solid line) typically increases over days of lab operations. As members of the class near completion of the ten instructional cycles, there is a decline in the dotted attendance line, and the solid cycle placement line approaches a level of 10, indicating the final instructional cycle.

It is apparent that the five classes in Figure 6A were exiting students much earlier than those in Figure 6B, but some had not completed the cycles by June.

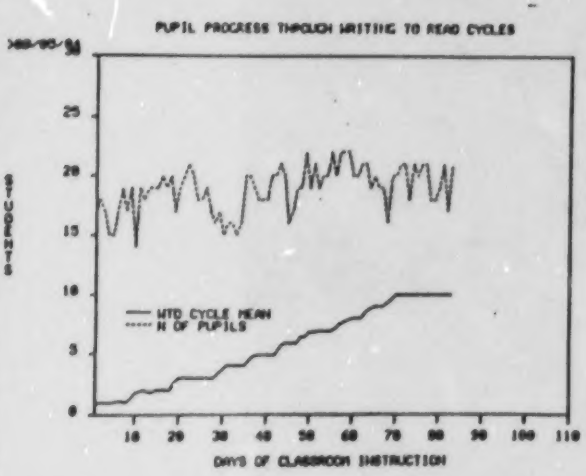
Classes represented in Figure 6B showed steady student progress through the cycles but most students had not completed them by June. A possible explanation in some cases is suggested by the graphs in the center of the page in Figure 6B where the change in the lines between 30 and 50 days could have been caused by bringing new students into the class during that time. Whatever the reason for the slower pace through the cycles, it does mean that some students will go into the next grade having completed the cycles while others have not, and subsequent instruction will need to accommodate this situation.

Another way in which classes differed is shown in Figure 7. These graphs show movement from cycle to cycle by groups. Although Writing to Read is supposed to individualize instruction, assignment to cycles by groups makes the lab more manageable.

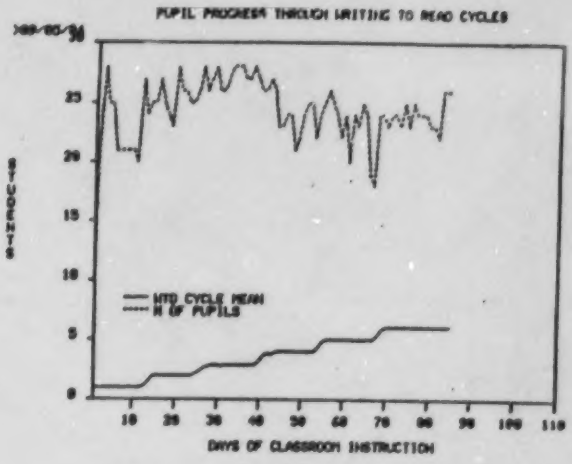
Figures 8 and 9 emphasize the differences in performance by classes in different settings and managed by different teachers.

Figure 7

Line Graphs of Two Classes' Group Progress Through Cycles



1st Grade class started in November



1/2 day Kindergarten class started in January

Dotted line - number of students attending that day.

Solid line - Average cycle placement of students that day.

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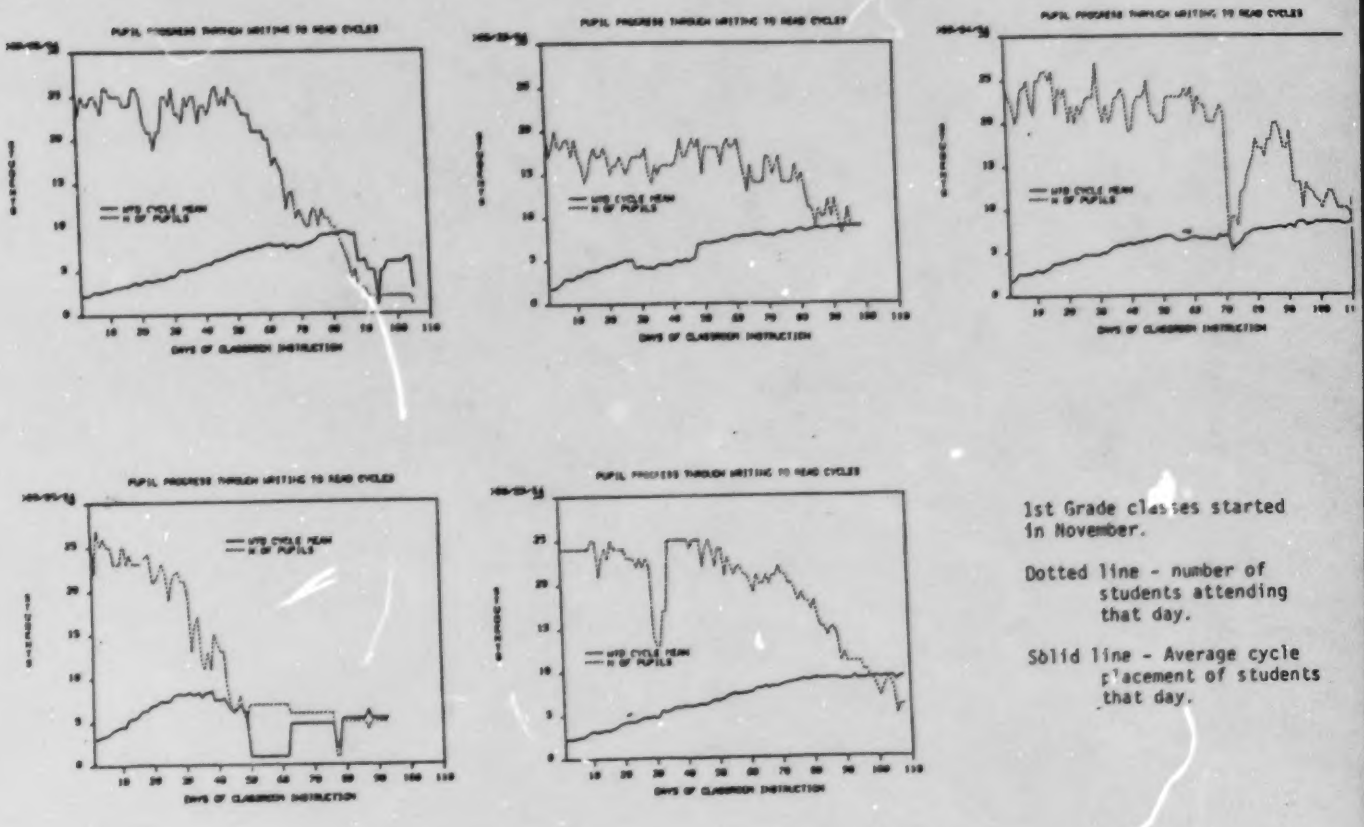
Figure 8

Line Graphs of Five First Grade Classes' Progress Through Cycles



1st Grade classes started in November.

Dotted line - number of students attending that day.

Solid line - Average cycle placement of students that day.

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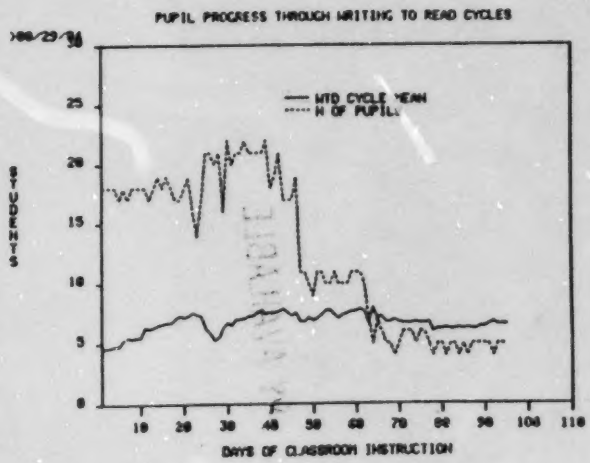
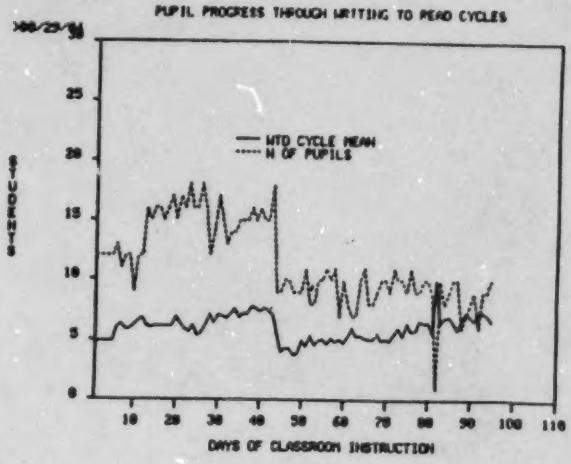
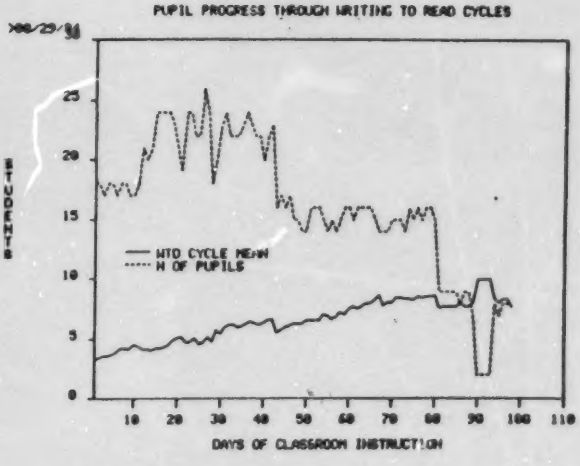
Figure 9

Line Graphs of Three Kindergarten Classes' Progress Through Cycles







Kindergarten classes started in October.

Dotted line - number of students attending that day.

Solid line - Average cycle placement of students that day.

Student Writing Levels

Table 10 presents a median Writing Level rating for each month (December through May) for kindergarten and first grade students who participated in Writing to Read.

Representatives of the Curriculum Department edited the Writing Level descriptions provided by the system developer. Portland teachers agreed to make a rating only for compositions which were somewhat original, as opposed to being directly copied or closely modeled.

The smaller number of kindergarten students reported in December is partly due to late system implementation in eight classes. Other variations in the total N's over time are due to inconsistency in reporting the Writing Level ratings during the six months of data collection.

Table 10

Median Writing Level Ratings by Grade Level and Month

Grade Level		Median Writing Level Rating					
		December	January	February	March	April	May
K		1	1	1	2	2	3
	N	(485)	(564)	(694)	(615)	(578)	(480)
1		1	3	3	3	4	4
	N	(272)	(324)	(300)	(337)	(345)	(334)

IV. Teacher Opinionnaire

The class-coded teacher opinionnaire was sent to all teachers who were scheduled to go with their students to the Writing to Read laboratory. No attempted follow-up was made to increase the number of opinionnaires returned. Thirty-six opinionnaires were returned; 34 were filled out -- three anonymously -- and two were returned indicating that the teacher named did not go to the Writing to Read laboratory. Fourteen opinionnaires were from full-day kindergarten teachers and 10 were from first grade teachers. Twenty seven of the responding teachers had begun Writing to Read in the fall, and the remaining nine began in January. Fifteen respondents were from ECEC schools and 19 from regular elementary schools. It is worth noting that in all probability there were those teachers who were satisfied with specific components of Writing to Read who did not bother to make comments and that some of the teachers who were dissatisfied made very specific comments.

Teachers were asked to respond to four separate issues:

1. Relationship of the Writing to Read system with primary readiness skill development,
2. Contributions of the system to general group progress in learning,
3. Positive and/or negative features of using the computer for instruction, and,
4. System applicability for individualization of instruction.

Writing to Read and Readiness. To respond to the issue of the relationship of Writing to Read with primary readiness skills, a matrix was provided in which teachers were directed to "check any of the following that apply." These directions allowed teachers to check more than one category, and as a result, two teachers checked responses indicating that Writing to Read both "Adds To" and "Detracts From" the regular instructional program.

Table 11 presents teachers' opinions of the relationship between Writing to Read and readiness skills.

Table 11

Teacher Perceptions of Relationships between Primary Readiness Skills and Writing to Read

READINESS SKILLS		HOW WRITING TO READ RELATES TO READINESS SKILLS IN THE REGULAR INSTRUCTIONAL PROGRAM				
		Extends Regular Program	Adds to Regular Program	Substitutes for Regular Program	No Noticeable Help	Detracts from Regular Program
Language	N	10	14	9	6	8
	%	21	30	19	13	17
Social-Emotional	N	8	11	4	11	8
	%	19	26	10	26	19
Cognitive	N	10	18	11	4	1
	%	23	41	25	9	2
Motor	N	7	10	3	14	6
	%	18	25	8	35	15

Teacher responses which fell in the first three columns of "Extends Regular Program," "Adds to Regular Program," or "Substitutes for Regular Program" were judged to be more positive perceptions of Writing to Read's contribution to readiness skill development. Responses which fell in the last two columns -- "No Noticeable Help," or "Detracts from Regular Program" were judged to be more negative perceptions.

When the positive and negative responses are equalized over their respective columns, there is potential for a clearer estimate of teacher perceptions of the Writing to Read-readiness relationship. For example, for the language category, 33 marks appeared in the more positive "Extends-Adds-Substitutes" columns and 14 marks appeared in the more negative "No Help-Detracts From" columns. Dividing the totals by the number of columns in which responses were marked resulted in a score of 11 for the more positive relationship and seven for the more negative relationship between Writing to Read and Language readiness. Table 12 presents an average of more and less positive teacher responses.

Table 12

Teachers' Positive and Negative Perceptions of the Relationship of Writing to Read with Primary Readiness Skills

READINESS SKILLS	RELATIONSHIP OF WRITING TO READ WITH READINESS	
	More Positive	More Negative
Language	11	7
Social Emotional	8	10
Cognitive	13	3
Motor	7	10

Teacher responses suggest that the Writing to Read experience contributes most positively to Language and Cognitive readiness skills, and does not help as much in Social Emotional and Motor skill development. It is worthwhile to note that teachers more frequently marked "No Noticeable Help" rather than "Detracts from Regular Program" when describing the relationship of Writing to Read with Social Emotional and Motor readiness skills.

General Progress of Writing to Read Class. When asked to compare the progress of their Writing to Read class with similar previous student groups, both kindergarten and first-grade teacher respondents reported improved student composition skills, increased ability for student self-direction and self-management, as well as enhanced self-confidence for the Writing to Read groups. Teacher perceptions were mixed in terms of improved reading skills.

Use of the Computer. Positive features of using the computer in Writing to Read were reported. Student motivation ranked as the chief feature, use of the computer as a teaching tool freeing the teacher to work with individual students ranked second, and the potential for improved public relations through parental approval of students' use of computers was third.

Negative features included the inadequacy of the Writing to Read software to support a fully-developed program, and the perception that some student needs are not met by the use of the computer.

Individualization of Instruction. In terms of individualizing instruction, teachers reported that the Writing to Read system did individualize by allowing children to progress at their own rates; however, in so doing, the "paired" management strategy was not always workable. Writing to Read was not perceived to fully support individualized instruction in terms of curriculum because too few materials were provided.

V. Principal's Topic List for Writing to Read

All 14 principals of the Writing to Read schools were interviewed in the late spring. A list of topics, rather than questions, was presented to each for spontaneous comments. All comments were recorded without questioning from the interviewer. Principals knew that typed copies of their comments would be sent to them for verification and editing as they saw fit. Final copies were produced and are on file.

As agreed, all 14 sets of comments were aggregated for reporting purposes and are in Appendix C. For convenience, a few comments selected to give overall impressions of the nature and range of information acquired under each topic are presented, but an interested reader is encouraged to read the comments in Appendix C.

PRINCIPALS' SURVEY RESULTS

TOPIC	SELECTED SUMMARY COMMENTS	SYNTHESIS OF COMMENTS RELATED TO TOPIC
1. How Writing to Read fits in with the other instructional programs.	. Gives pupils another area of language development. . Takes the place of our pre-reading program. . A large number of our kindergarten pupils were not ready. . Needs to be coordinated with a reading program.	WTR adds an emphasis on writing to the kindergarten program. It is supplementary language experience approach. It fits in with language development curriculum, but requires other instructional materials and activities to make it also support a reading program.
2. Program inservice requirements.	. The inservice for teachers and aides was sufficient. . All teachers must take inservice. . Inservice should be a continuous process. . Teachers need adequate inservice before school starts. . Pulling teachers out of class for inservice is not adequate. . No clear correspondence between guidelines given by IBM and by inservice.	WTR requires extensive and well-organized initial inservice availability and continuous reinforcement. The inservice sessions need to be well-coordinated with lab functions and sufficient time budgeted outside of school hours.
3. Observable benefits to students.	. Children enjoy it. . Students who are able get right into the stories. . Students are definitely making gains in the language arts skill area. . For pupils not ready it's a hindrance. . It's boring to the average and above average student.	Generally, children enjoy WTR and make gains in the language arts skill area. Those who are ready get right into story writing although it is boring to some average and above average students.
4. Usefulness of materials and equipment in reaching educational goals.	. Materials are useful. . Computer is a good way to teach phonics. . We had to organize materials and set up structured activities at each center. . We need a control group in order to tell. . Need to revise Work Journals. . We need materials to facilitate steps after the computer.	WTR laboratory equipment and materials are useful, but there is a serious need for more and greater variety of support materials. Using the computer with a printer is desirable. Work Journals need revision.

PRINCIPALS' SURVEY RESULTS

TOPIC	SELECTED SUMMARY COMMENTS	SYNTHESIS OF COMMENTS RELATED TO TOPIC
5. Program support for your 1983-84 instructional goals.	. Directly supported writing goals. . Direct support for the reading program. . Meets some of the first grade and kindergarten goals. . We had to rewrite our instructional goals after hearing about the program.	System supports narrow range of goals and needs supplementary materials. The actual amount of support provided to reading, writing or language goals is not clear.
6. Influence on school management priorities.	. Principals must be on top of the program to make it work. . It was difficult to schedule into the instructional activities of the school. . Principals should be the instructional leaders, not an IBM program and the Curriculum Department.	WTR needs administrative attention and support, especially in its initial stages. Planning is required to fit it into the total school schedule and this is especially hard for half-day kindergarten.
7. Impact on school budget and other resources.	. School should not have to absorb cost of aide from its budget. . Money is spent for this program to do what is supposed to be done for the total school program.	As implemented, the WTR system required reassignment of appreciable financial and personnel resources within the school apart from the District-provided laboratory equipment, software, & supervision.
8. Quality of support services from the central office.	. Karen Welch is very supportive. . Good support. . As good as you can expect. . Support got better as time went on. . We get two different stories from Curriculum and IBM about how to run the program. . Too many schools for too few support people in such a large project.	Central office support for WTR was appreciated to the extent it was available. Several factors made this system difficult to institute. Curriculum personnel were responsive and supportive but shorthanded for this project. They were responsive to practical problems as presented by the schools and made important adjustments to the system.

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PRINCIPALS' SURVEY RESULTS

TOPIC	SELECTED SUMMARY COMMENTS	SYNTHESIS OF COMMENTS RELATED TO TOPIC
9. Contribution of aides to the program.	. The aide is essential. . Aide training is critical. . Aide has to follow different teachers' style of teaching for the different classes.	Aides are seen as essential to implementation of the WTR system. Usefulness of WTR labs is correlated with the training and skills of the aide.
10. Impact on teacher morale.	. Morale improved as the program unfolded. . First grade teachers sold on program. . Half and half, from gung ho to considering it an extra burden with aides misused. . Still feel frustration of being accountable for the total kindergarten curriculum.	Teacher acceptance of the WTR system has generally improved during the year. Some aspects of its implementation are frustrating, especially to kindergarten teachers.
11. Pupils' manipulation of equipment.	. Pupils handle the equipment well. . Kids can do it with proper introduction and supervision and positive reinforcement. . Not all kindergarten students are mature enough to use equipment.	Students can manipulate the WTR lab equipment with proper introduction and supervision. Students do not damage equipment, although not all kindergarten students are mature enough to use the equipment as intended.
12. Reinforcements of student learning.	. Teachers set up activities that reinforce on Cycle words at each center. . We need a good intervention system to adapt the program to student needs.	Computer reinforces student learning; however, results of effectiveness are not clear.

PRINCIPALS' SURVEY RESULTS

TOPIC	SELECTED SUMMARY COMMENTS	SYNTHESIS OF COMMENTS RELATED TO TOPIC
13. Perceptions of parents and staff.	. The staff perceives it positively because of computers and the motivation to write. . Staff is positive now. . Teachers divided for and against. . Frustration because of lack of materials. . The computer has to be "good stuff" in parents' estimation. . Parents' interests are peripheral, they do not understand the program. . Had to take an aide from other programs that I had told parents would have aide support.	After WTR had been in the school for half a year or more, parents and teachers were largely positive in their perceptions of the system. It served as a positive public relations factor.
14. Learning theory underlying the Writing to Read program.	. It is a good tool to get children to read better by reading something they wrote, and what other people wrote. . Different children need different things to help them learn. . There is nothing new about the theory.	Theoretical basis for the WTR system is acceptable. Student interest and accomplishments, especially in writing, are supportive. However, the system is not considered sufficient as an instructional program in reading.

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In addition to the responses directly related to the 14 topics, principals volunteered statements regarding "Writing to Read as a system" and they enumerated other concerns.

-- Writing to Read as an instructional system is lacking in depth of materials, not applicable to the full range of language readiness in any grade level; it is not as much a reading as a writing system; and it lacks continuity with instruction that is to follow.

-- Considering Writing to Read in other respects, it is popular with parents, and generally with teachers and principals, as well as approved by the Curriculum and Data Processing Departments.

In addition to the actual statements made by principals, a summary completed by an independent consultant appears in Appendix C.

CONCLUSIONS

Portland teachers supported the implementation of Writing to Read by designing and implementing supplementary language development components of the system and facilitating the laboratory stations operations during the 1983-84 pilot year. Personnel support was provided by a computer lab aide in every Writing to Read lab.

Where teachers adapted the Writing to Read system, they did so in terms of their professional judgments regarding specific readiness requirements for successful participation in the system. Both teachers and principals reported a concern with readiness, particularly for kindergarten students.

Both teachers and principals perceived Writing to Read as contributing positively to improved writing (composition) for both kindergarten and first grade participants. Its impact on reading was seldom reported.

RECOMMENDATIONS

Recommendations to continue or discontinue the Writing to Read system cannot be made by Portland Public Schools at this time. However, recommendations of a formative nature can be made from the current findings.

It is important to remember that the Writing to Read system consists of a required Computer and Work Journal (which provide direct instruction in phonemes) and related language development activities. Recommendations 1-3 speak to the operation of Writing to Read as a whole system as intended by the developer, and not to isolated system components which may be instructionally useful regardless of the intent of Writing to Read. Recommendation 4 suggests that system variations be considered in order to provide for evaluative comparisons with Writing to Read.

Recommendation 1

The place of Writing to Read in the language arts program, its contribution to reading and its contribution to writing, should be established.

Concern has been expressed about the relationship of Writing to Read with reading instruction and with writing (composition). It is important to specify how much energy should be directed to each curriculum component, and what student performance outcomes in each area are expected.

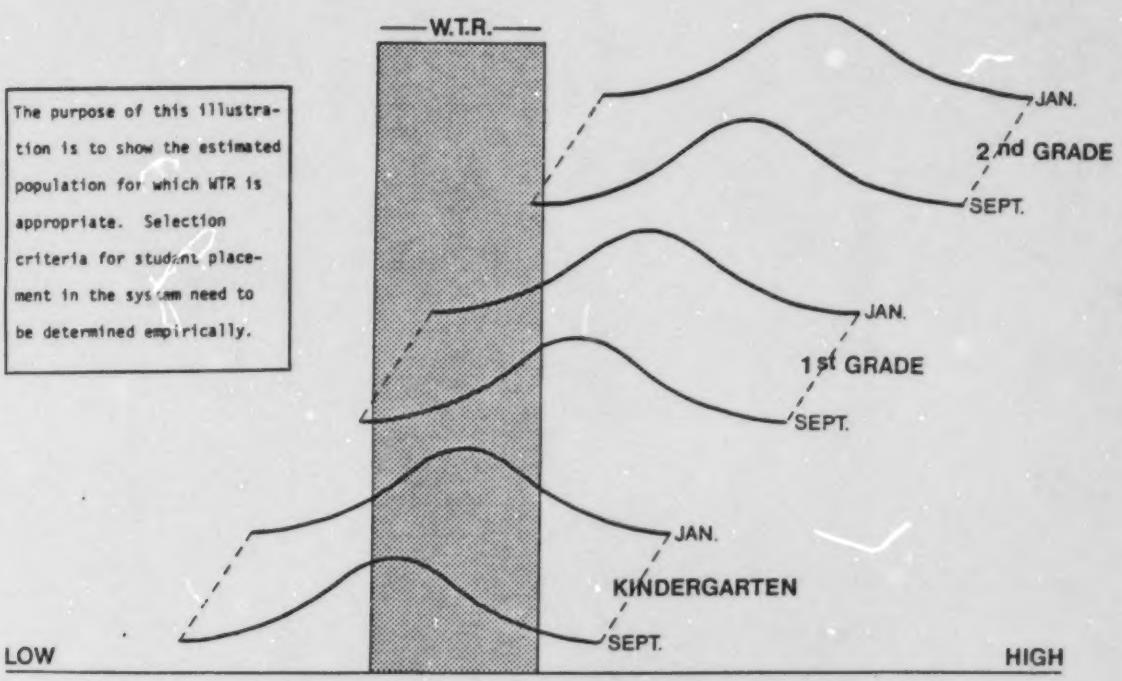
Reading and writing abilities, though related, are different; and they are measured in increasingly different ways as reading comprehension and writing creativity develop. A statement of the system's support for reading instruction, for writing instruction, and expected student outcomes in each, is necessary to formulate an evaluation design for the following year.

Recommendation 2

The most needed program improvement indicated by the findings is establishment of criteria for determination of pupil readiness to work in the Writing to Read system.

WRITING TO READ

Range of W.T.R. system applicability based on language development.



It is recommended that a study be made in the 1984-85 school year to set the appropriate limits of pupil language development and provide screening procedures to determine which students should be involved in the system.

Students develop at different rates in most activities based on maturation and/or learning. The word "readiness" is commonly used to indicate a stage of an individual's development related to appropriateness of exposure to some instructional program. It is also commonly considered important, especially for beginning learners, not to frustrate students by imposing upon them tasks beyond their present capabilities.

Because of the powerful influence of the instruction provided by the computer on the way a young pupil is learning, precautions need to be taken to avoid interference with subsequent language development. A related screening is needed to determine which students have developed beyond the system's impact for reading instruction. For example, some children come to school with some reading ability, (e.g., they can form and sound out most of the letters in the alphabet), and these students need not be included in required Computer and Work Journal station activities of the WTR system. These components of Writing to Read address a discrete part of pre-reading development, and do so with symbolism that must be unlearned later. It is not helpful to complicate a student's language development in this way. Therefore, another set of selection procedures needs to be a part of using the W.T.R. system, especially for first grade students.

Recommendation 3

Writing to Read supports a non-traditional instructional approach which encourages the development of children's self-management in early language arts learning. It is important to establish whether this dimension exists and what it contributes to student outcomes in early reading and writing.

When Writing to Read is implemented according to the developer's intent, it is expected that the skill of self-management will enhance a student's participation in the system, and lead to his improved reading and writing achievement. Adaptations in system implementation may preclude such skill development, and result in less positive achievement outcomes. Student outcomes should be considered in relation to the nature of the Writing to Read implementation.

Recommendation 4

The effectiveness of Writing to Read with alternative language lab systems should be evaluated.

It is recommended that an evaluative comparison be made between the vendor's Writing to Read system and two logical alternatives: (a) a language lab system in which the computer is used as a word processor, and, (b) a language lab system which does not include computer use.

APPENDIX A:

- Memorandum of District Writing to Read Coordinator
- ETS Evaluation of Writing to Read: Portland Public Schools Pilot Project Participation
- Relationship of Writing to Read with District Language Arts Continuum

MEMORANDUM PREPARED BY DISTRICT WRITING TO READ COORDINATOR

MARCH, 1984

WRITING TO READ SYSTEM GUIDELINES

EXPECTATIONS	ACCEPTABLE VARIATIONS
The WTR Lab must be equipped with a computer station with 3 IBM computers and 1 printer, a work journal station with 3 listening cassettes and 6 sets of headphones, a typewriting station with 6 IBM Selectric typewriters, a listening center with 3 listening cassettes and 6 sets of headphones, a writing (composing) station and a game station.	Additional stations may be added which support the WRITING TO READ program.
All learning stations should be in operation each day.	All stations will not be attended by all students each day, but all stations should be attended by some pupils each day.
A full time computer lab aide will be hired to assist with the program.	None
The entire class will attend the lab each day.	Students with special needs should be provided for in the lab whenever possible. Students may necessarily be involved in another program (i.e., Chapter I, Speech) during their lab time which would prevent them from attending the lab. However, students should not remain in their classroom.
The classroom teacher must accompany his/her class to the lab each day and assume responsibility as the instructional leader.	None
The class will remain in the lab for approximately one hour each day, five days per week.	Because of scheduling difficulties and/or class size the lab time could be increased or decreased no more than 15 minutes.
Pupils should not be moving as a group through the learning stations. Individuals and pairs should follow a free flow system which provides for more individualized instruction.	Teachers unable to function without a rotation system must make provisions for students who finish work at a station early and for students who need more time at an activity.
All pupils should try to attend the computer, work journal and writing stations daily.	Students having difficulty may attend the computer station every other day to allow time for extended activities at other stations. Students who have completed the cycles may spend extended time at other activities.

KEY INDICATORS OF SUCCESSFUL IMPLEMENTATION OF THE WRITING TO READ PROGRAM

THE LAB

- Provides an inviting "language rich" environment.
- The atmosphere is calm, yet industrious.
- All learning stations are clearly defined and well-organized.
- All of the equipment is operating well.
- Student writing is displayed extensively on bulletin boards, display counters, etc.
- There is evidence of additional supportive stations and activities (e.g., chalkboard, etc.).
- All stations are in operation daily.
- The WTR wall charts are displayed for pupil reference.

THE LEARNING STATIONS

Computer

- Pupils should be working with partners, except when taking mastery tests, or when a pupil has advanced beyond or fallen behind other suitable partners in the group.
- Children having difficulty may attend the computer station every other day, but should be participating in other appropriate lab activities.
- Children should be at the computer no more than 15 minutes, however, they may attend less than 15 minutes.
- Students progressing well may move more rapidly through the cycles, however, attention still should be given to all of the other supportive activities at the other learning stations. (The computer cycles and journals should constitute the smallest portion of time spent compared with actual writing and language experiences.)
- Students have difficulty passing the mastery test are given 2 or 3 tries and then moved on to the next cycle.
- Word processing and printing should be used frequently.
- Students who have completed Cycle 10 may:
  - review cycle mastery tests and Make Words activities
  - use supplemental software which reinforces the WTR program (touch typing, story maker, etc.)
  - use word processing with or without printer to compose stories (and read to others)
  - engage in additional station activities and attend the computer station every other day

THE LEARNING STATIONS (Continued)

Work Journal

- Children should be working in pairs whenever possible.
- Accommodations should be made for children having difficulty (e.g., may complete only a portion of the journal as determined by the teacher).
- Only supplemental worksheets which support and reinforce the phonemes and cycle words being studied should be used.
- Emphasis on handwriting instruction is not appropriate at this center
- All pupils should not be on the same cycle since pupils should be moving at their own rate.

Writing (Composing)

- Writing should be the primary measure of accomplishment (and mastery) in the WTR system - not movement through the cycles.
- Emphasis should be on pupils writing what they can say rather than something assigned.
- Emphasis should be on the process of writing, not product.
- Emphasis should not be placed on book spelling and/or handwriting until pupils are ready to make transition.
- Pupils should demonstrate an understanding of the relationship between the computer cycles, work journals, sound/symbol association and the writing process.
- Phonemic and/or invented spelling should be encouraged and accepted.
- Free writing should be encouraged by having pupils spell the word the way it sounds.

    1) Say the word
    2) Listen for sounds they hear in the word
    3) Write the sounds they hear

- Writing should be displayed on bulletin boards, in booklets, etc.
- Writing is not marked or "corrected" by teacher.
- Teachers should respond to the question "How do you spell _____?" by saying something similar to "Spell the word the way you say it."

THE LEARNING STATIONS (Continued)

Writing (Composing) Continued

- Teachers respond to pupil questions - "Is this spelled right?" by saying something similar to: "Read the word - have you written the sounds you hear? Then you have correctly written the word the way it sounds when you say it."
- Different stages of writing are accepted (e.g., scribbling, picture stories, dictating, etc.
- An ample supply of lined and unlined paper in various sizes, shapes and colors should be available.
- Story starters, pictures, oral language experience, etc. should be used to motivate free writing.

Typing

- Pupils should have thorough understanding of functioning of typewriter (shift key, space bar, etc.)
- Pupils should have opportunity to explore typewriter.
- Pupils may initially copy cycle words for reinforcement, but should move to free writing as soon as able.
- Pupils should copy own writing whenever possible.
- Pupils should be encouraged to compose on the typewriter.
- Students should have a system for editing so they don't become overly concerned about mistakes (e.g., using slash / to cross out letters).

Listening

- Listening stories should be read to pupils in classroom before being introduced.
- Supplemental listening stories may be used.

Games

- The Bingo games should be used consistently to reinforce the computer instruction in phonemes and cycle words.
- The Make Words game should be used consistently to reinforce the computer instruction in making new words with the phonemes.

Supplemental Activities

- Supplemental activities for individuals, pairs and groups should be limited to: sound recognition, letter recognition, encoding sounds to writing, re-combining sounds to make new words, invented spelling, decoding of sounds, word sound.
- Supplemental phonics games may be used which reinforce the sounds and letters being learned.

THE LEARNING STATIONS (Continued)

Supplemental Activities (Continued)

- Additional stage appropriate games and activities may be used which directly relate to the WTR instruction (i.e., clay, cut and paste, etc.)
- Puzzles, dittos, coloring, etc., not directly related to the teaching of the WTR skills, should not be used in the lab.

THE TEACHER

- Provides instructional leadership for the program (e.g., plans activities for pupils).
- Moves among the stations, providing positive feedback and assistance when appropriate (doesn't limit self to one station for the entire session).
- Responds to questions in a timely fashion.
- Has provided supplemental materials and activities to meet the needs of individual pupils.
- Provides a management system for individuals and pairs rather than groups.
- Encourages, accepts and supports trial and error.
- Models writing and phonemic spelling when appropriate.
- Views each activity and classroom experience as a potential writing activity.
- Isn't rigid about correct spelling and handwriting.
- Accepts each pupil's stage of development and level of writing (e.g., scribbling, dictating, etc.)

THE PUPILS

- Demonstrate thorough understanding of the operation of all equipment.
- Know where to begin when they enter the center.
- Understand the purpose and activities of each learning station.
- Don't have to wait at a station when a task is finished, but rather freely move to a new station.
- Demonstrate enthusiastic on-task behavior.

THE PUPILS (Continued)

- Assume responsibility for their own learning (e.g., self-movement to learning stations, marking journals, carrying journals to centers.
- Display independence and self-motivation (selecting tapes for listening, operating equipment, etc.)
- Eagerly read their stories to each other, teachers, visitors
- Are not overly fearful of making mistakes in typing, spelling, etc.
- Display an interest in writing.

THE COMPUTER LAB AIDE

- Provides constant supervision at the computers.
- Efficiently moves pupils on and off computers.
- Monitors pupils' progress through cycles.
- Maintains lab (well organized, in good repair, etc.)
- Provides positive feedback and assistance as needed.
- Maintains accurate records and files.
- Maintains complete list of program and material errors.
- Communicates needs to teachers and coordinators.

THE COORDINATOR

- Provides on-site support to teachers and aides (e.g., trouble-shooting, problem-solving).
- Coordinates teachers, aides, etc., to provide necessary consistency in the lab (e.g., team meetings).
- Provides ongoing monitoring of program progress.
- Provides ongoing feedback to teachers.
- Forwards information to the Curriculum Department, Data Processing and/or IBM as appropriate.
- Provides for parent orientation and involvement.

ETS EVALUATION OF WRITING TO READ:
PORTLAND PUBLIC SCHOOLS PILOT PROJECT PARTICIPATION

In this second year of national field testing of Writing to Read, the system continues to be evaluated by the Educational Testing Service (ETS). Portland Public Schools Curriculum, Data Processing and Research and Evaluation Departments, as well as teachers and building support staff, cooperated extensively in ETS' data collection during this year of formative evaluation. Teachers, principals and parents of participating students provided information about the program through an ETS-developed survey questionnaire. Kindergarten and first-grade students in sample and control schools participated in fall and spring standardized testing, as well as in production of individual student writing samples in the spring of 1984.

The Curriculum Department worked with ETS representatives in the fall to select similar Writing to Read and control classes. Table 1 identifies the ETS sample.

Table 1

Writing to Read ETS Sample and Control Classes

SCHOOL	NUMBER OF CLASSES	GRADE LEVEL	SELECTED CLASSES	
			WTR SAMPLE	CONTROL
Chapman	2	1	2	
Eliot ECEC	6	K	1	5
	4	1	2	2
Faubion	3	1		3
Irvington ECEC	4	K	2	2
Marysville	2	K*		2
	3	1		3
Rieke	1	1		1
Sunnyside	2	K*	2	
	2	1	2	
Vernon ECEC	5	K	5	
	3	1	3	

*Half-day kindergarten program

The Evaluation Department coordinated the fall and spring standardized pre and post-testing for sample and control classes. In the fall, classroom teachers administered the CTBS Level B, Form U at grade 1; Levels B and C, Form U were administered in the spring.[1] The Evaluation Department contracted the services of two testing teams to administer the Metropolitan Readiness Tests to kindergarten students. Level I was administered in the fall of 1983 and Level II during the spring of 1984. Scoring and test-results were provided to participating schools by the Evaluation Department. All tests were forwarded to ETS for inclusion in their national evaluation sample.

The Data Processing and Research and Evaluation Departments cooperated to devise a monthly Classroom Writing to Read Progress Record for all Writing to Read classes. Computer-lab aides used the monthly Record to code individual student entry to each of ten computer-based instructional cycles, and classroom teachers provided monthly rating of each student's writing development. The Curriculum Department adapted the set of publisher suggested, writing-level criteria for teacher use in the monthly rating.

The Records were maintained December, 1983 through May, 1984 and copies for the Writing to Read sample classes were forwarded to ETS. Records of all Writing to Read classes which began in January, 1984 or earlier were maintained for the Portland Public Schools evaluation of the Writing to Read pilot project.

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[1] Classroom teachers and District Chapter I coordinators determined that Chapter I students in the ETS sample would be more appropriately tested on the B level of the CTBS in the spring, in order to fulfill Chapter I evaluation requirements. Therefore, participating first-grade teachers administered two levels of the CTBS to their classes--Level B to Chapter I students and Level C to Non-Chapter I students. ETS accepted both levels for inclusion in their national data.

Relationship of Writing to Read with the District Language Arts Continuum

Writing to Read was examined in relation to two curriculum documents of the Portland Public Schools--the Outline of Foundation Skills and Reading and Writing components of the Language Arts Continuum. It is important to realize that the review did not include a match with the entire continuum, nor did it examine continuum components which may be unrelated to Writing to Read. Rather, the intent was to briefly describe how Writing to Read fits with the District language arts scope and sequence.

Foundation Skills

For the category Foundations Skills (fundamental to all content areas and generally accepted as developmental), specific grade-level configurations are not particularly useful in describing their place in a curriculum scope and sequence. Therefore, the relationships drawn between Writing to Read and the District's Foundation Skills have included consideration of the entire Outline.

Figure 1 presents the five categories of foundation skills, with notation of specific skills related to Writing to Read. "Expressive Language Development" is the category most closely related to Writing to Read.

Figure 1
Foundation Skills Related to Writing to Read

SENSORY DEVELOPMENT	MOTOR DEVELOPMENT	CONCEPTUAL LANGUAGE DEVELOPMENT	EXPRESSIVE LANGUAGE DEVELOPMENT	STUDY/LIFE SKILLS DEVELOPMENT
	B. Fine Motor 3. Use of Tools Performs tasks by manipulating controls (e.g., joy-stick, key-board, keys, computer controls).		C. Self-Expression 1. Organization of Ideas 2. Communication Describes people, events experiences, and stories. Expresses self spontaneously and naturally through interaction with the arts (e.g., drawing, painting, . . .) Illustrates personal ex-periences, events, persons, persons, and objects through the arts (e.g., pictures . . .)	B. Social Under-standings 2. Interactions Takes turns.

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Reading and Writing

Reading and writing skills are more amenable to grade-level ordering in terms of skill introduction, development, and mastery. Relationships drawn between Writing to Read and the Language Arts Continuum are based on study of the PK - 1 levels for reading and writing.

The reading scope and sequence contains four parts: I) Reading Readiness, II) Word Identification, III) Comprehension, and IV) Study Skills. Each part is presented in terms of an appropriate grade-level relationship.

The Writing to Read system supplements reading more specifically in terms of reading readiness. Figure 2 presents categories of Reading Readiness related to Writing to Read.

Figure 2

Reading Readiness and Writing to Read

CATEGORY/COMPONENT	LEVEL PK-K	LEVEL 1
I. READING READINESS		
A. Visual Perception		
1. Discrimination	Identifies likenesses and differences in letters of the alphabet.	Discriminates between letters that are similar in form.
	Matches single letters.	Matches clusters of letters or words.
		Identifies likenesses and differences in words. (e.g., configuration, similar letter order)
		Matches phrases.
2. Memory	Names upper and lower case letters from letter symbols.	Names the upper and lower case letters of the alphabet from letter symbol and without hesitation.
	Matches upper and lower case letters. (e.g., A-a)	Matches upper and lower case letters of the alphabet.
	Recites the alphabet.	Arranges the alphabet in correct sequence.
C. Cognitive Perception	Recognizes that what can be said can be written.	Develop
		Recognizes that what can be said can be read.
		Recognizes that words are groups of letters.
		Recognizes sentences as groups of words.

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A relationship between the Cognitive Perception skills and the design of Writing to Read as a preliminary supplement may be inferred from the ordering of the relationships between speaking, writing and reading. The traditional reading-to-writing sequence is reversed in the scope and sequence document, as it is by design, in Writing to Read.

Figure 2A displays the Word Identification (or phonics) category of the Reading continuum. The exact nature of the relationship or complement between basal reading instruction (involving phonics) and the preliminary supplement of Writing to Read (which emphasizes 40 phonemes) is not clear.

Figure 2A
Phonics component of the Reading continuum related to Writing to Read

CATEGORY/COMPONENT	LEVEL PK-K	LEVEL 1
II. WORD IDENTIFICATION		
A. Phonics		
1. Consonants		
a. Single	Produces consonant sounds.	Produces all single consonant letter sounds.
	Recognizes letter/sound relationships.	Identifies letter/sound relationships.
b. Blends		Identifies placement of a letter sound in initial, medial, or final position. Reads words with two letters consonant blends. (e.g., bl, st, tr)
		Recognizes the substituion of initial and final consonant blends on words.
c. Digraphs		Reads words with consonant digraphs. (e.g., g, ch, sh, th, wh)
d. Silent Letters		Recognizes the substitution of initial and final consonant digraphs. (e.g., g, sh, ch, ph)
2. Vowels		
a. Short	Produces short vowel sounds.	Pronounces short vowel sounds initial/medial positions. (e.g., g, CVC, VC)
b. Long	Produces long vowel sounds.	Reads CVC word patterns. Reads words with long vowel sounds controlled by silent e.
c. Digraphs		Pronounces vowel digraphs, (e.g., ee, ea, oa)
d. Diphthongs		Pronounces sounds of vowel diphthongs. (e.g., oi, oy, ou, ow)
e. Consonant Controlled		Recognizes vowels controlled by "r." (e.g., fur, far, fur)
III. COMPREHENSION		
A. Word Meaning		
1. Name	Recognizes words as a unit of meaning.	
B. Literal		
1. Details	Tells about details in a direct experience, picture, or oral story.	

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Writing, particularly the Composing and Writing Process of the continuum, closely fits the design of Writing to Read. The writing scope and sequence contains six parts: I) Composing/Writing Process, II) Composition Structure, III) Composition Forms, IV) Grammar/Usage, V) Mechanics, VI) Use of Appropriate Technology. Parts I, II, V and VI are directly supported by the Writing to Read system. See Figure 3

Figure 3

Composing and Writing Process of the Writing scope and sequence related to Writing to Read

CATEGORY/COMPONENT	LEVEL PK-K	LEVEL 1
I. COMPOSING AND WRITING PROCESS		
A. Precomposing Skills		
1. Generation of Ideas	Participates in teacher-directed precomposing discussion.	Develop
		Participates in small group recomposing discussions.
2. Language Experience	Dictates labels, captions, sentences.	Dictates and copies labels, captions, sentences.
	Dictates ideas for an experience story.	Dictates and copies personal experience stories.
		Dictates and copies imaginative stories.
		Dictates and copies informative stories
3. Free Writing	Draws pictures to express own ideas.	Writes freely to express own ideas.
	Uses own symbols to express ideas.	Develop
C. Edition Process		
1. Rough Draft		
2. Editing		
3. Proofreading		
II. COMPOSITION AND STRUCTURE		
B. Sentence Development		
1. Type		
a. Simple	Composes sentences orally.	Develop
		Writes simple declarative and interrogative sentences.
V. MECHANICS		
D. Spelling		
1. Letter and Sound Relationships		Writes letters that represent sounds.
		Spells words that have sound/symbol correspondence. (e.g., cat, stop)
		Substitutes letter sounds in word patterns.
		Spells words with consonant digraphs.
VI. USE OF APPROPRIATE TECHNOLOGY		
A. Cassette Recorder	Operates a cassette player for listening.	Develop
B. Microcomputer	Recognizes the relationship between keys of the keyboard and the operation.	Develop
C. Typewriter	Recognizes the relationship between the keys of the keyboard and the operation.	Composes and rewrites using a typewriter.

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One way to consider the most appropriate use of the Writing to Read system may be through consideration of its fit with the District Language Arts Continuum. Initial questions might include:

1. Are there readiness requirements for participation in Writing to Read?

2. Is Writing to Read more useful as a supplement for writing than for reading?

3. If Writing to Read is an effective "preliminary" supplement to reading, how is the introduction to phonemes related to basal phonics instruction?

APPENDIX B:

PORTLAND PUBLIC SCHOOLS DATA COLLECTION INSTRUMENTS

- Program Descriptions by Teachers
- Program Descriptions by Building Coordinator
- Observation Notes Outline
- 15-Minute Observation of Student Use of Computer by Sex of Student
- Three One-Minute Observations of Students' Behaviors at the Computer
- Three One-Minute Observations of Student Behavior at all Writing to Read Stations and Supervision of Stations
- Classroom Writing to Read Progress Record
- Teachers' Opinionnaire
- Principal's Topic List for Writing to Read

EVALUATION INSTRUMENT

WRITING TO READ
PROGRAM DESCRIPTIONS BY TEACHERS

School _____ (Circle One: Kindergarten Teacher, First Grade Teacher)

I. DESCRIBE your WRITING TO READ management system

A. Orientation procedures
B. Student groupings
C. Student movement between stations

II. Comment on WRITING TO READ stations

A. Computers
   1. Cycle Words
   2. Mastery Tests
   3. Make Words
   4. Silly Sentences/Games
B. Work Journals
C. Typewriters
D. Bingo/Make Words Games
E. Other

III. Describe your WRITING TO READ program responsibilities

A. In the WTR Center
B. Outside the WTR Center (preparation/follow-up)

IV. Is WRITING TO READ your total language arts program?
(Circle one: Yes No)

If No, What other materials/programs do you use in the WTR Center?

If No, What other materials/programs do you use outside the WTR Center in your regular classroom?

V. Describe any special adjustments you have made in the WTR program

A. To meet individual student needs
B. In terms of number of days/week in the WTR Center
C. In terms of special scheduling through the WTR stations
D. Indicate approximate number of students working in "adjusted" WTR program

VI. Comments

EVALUATION INSTRUMENT

WRITING TO READ
PROGRAM DESCRIPTIONS BY COORDINATORS

School _____

I. DESCRIBE your WRITING TO READ management system

A. Orientation procedures

B. Student groupings

C. Student movement between stations

II. Comment on WRITING TO READ stations

A. Computers

1. Cycle Words
2. Mastery Tests
3. Make Words
4. Silly Sentences/Games

B. Work Journals

C. Typewriters

D. Bingo/Make Words Games

E. Other

III. Describe your responsibilities in the WRITING TO READ program

IV. What other instructional programs are being used in the WRITING TO READ Center?

V. Other Comments

EVALUATION INSTRUMENT

Observer: Date: _____

Time: _____

Program: WRITING TO READ Site: _____

OBSERVATION NOTES

1. Room Arrangement

1 = _____
2 = _____
3 = _____
4 = _____
5 = _____
6 = _____
7 = _____
8 = _____
9 = _____
10 = _____
12 = _____
13 = _____

2. Adults Working with Program

3. Visitors

4. Adult Interaction with Students

5. Room Atmosphere

6. Work Stations

7. Observation of Student Behavior

8. General Observations about Students:

15-Minute Observation of Student Use of Computer by Sex of Student

The purpose of these observations was to identify and record the rotation of boys and girls to the Computer station. A predetermined time period was identified--ten minutes after the class had begun until fifteen minutes later. At the beginning of the time period, the sex of the child working at each of the three computers in any six possible places was recorded. Each time a student left and was replaced by another, the sex of the new student was recorded.

At the end of the fifteen-minute time period, the total number of boys and girls who used the computers was tallied. Observers also recorded the number of boys and number of girls present in the lab at the time of the classroom visitation.

Observer: _____ Date: ___-___-___ Classroom: _____ Time:____ to ____

15-Minute Observation of Student Use of the Computer by Sex

Number of Boys Present _____ Grade _____ Teacher _____
Number of Girls Present _____ Site _____ Aide _____

Computer 1		Computer 2		Computer 3	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Total Number of Boys using computer during the 15-minute period _____

Total Number of Girls using computer during the 15-minute period _____

Observer: _____ Date: ___-___-___ Classroom: _____ Time:____ to ____

THREE ONE-MINUTE OBSERVATIONS OF STUDENTS' BEHAVIORS AT THE COMPUTERS

Description of Student Behavior	Observation 1: to						Observation 2: to						Observation 3: to					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
* * ON TASK * *																		
Talking about unrelated activity																		
Playing with equipment																		
Looking away (Computer operating)																		
Waiting for assistance from adult																		
No one at PC Station																		
Other _____ _____																		
Other _____ _____																		

Directions: Observations of student behaviors at the six computer stations will be made at scheduled times during the class period. At the end of a one-minute observation, the behavior of each student will be recorded.

Three One-Minute Observations of Students' Behavior at the Computers

Observations of student behaviors at the six places of the three Computer Stations were made ten, twenty, and thirty minutes after lab activities had begun. At the end of each of the one-minute observations, the behavior of each student was recorded according to one of the following categories:

a. On Task: The student responded appropriately to the commands of the instructional software, looked at the screen, or conversed with his partner in terms of the software program.

b. Talking about an Unrelated Activity: The student did not respond to the software commands and instead conversed with his partner or another student on a topic unrelated to lab activities.

c. Playing with Equipment: The student did not respond to the software commands and did not look at the screen, but instead played with cords, speakers, or keyboard elements.

d. Waiting for Adult Assistance: The student finished a cycle, and waited for the computer lab aide to dismiss him or had just moved to the station and waited for his diskette to be loaded. Or, the computer lab aide had inserted the appropriate diskette and the student waited for the menu to appear, or sat idly with the menu before him and did not respond.

e. No One is Present at the Computer Station: One or both places at the computer were vacant.

f. Responding to Aural Cues Only: The student did not look at the screen, but instead looked around the lab or conversed with his partner or another student, and responded only to those auditory commands which asked him to type a phoneme.

Three One-Minute Observations of Student Behavior at All Writing to Read Stations

Observations of student behavior at the Writing to Read stations were made fifteen, twenty-five, and thirty-five minutes after the lab activities had begun. At the end of each one- minute observation, the behavior of students at each work station was noted.

Categories of student behavior were coded as either on or off task; Stations and related on-task activities are noted below:

a. Computers: The student worked in cycles, Silly Sentences, Games, Word Processing.

b. Work Journals: The student completed Work Journal or related reinforcement assignment.

c. Listening: The student listened and followed in the book.

d. Typewriters: The student copied words, sentences, dictation or composed freely.

e. Composing: The student "composed" orally, with illustrations, or in writing; composition might be copied or original.

f. Games: The student participated in Writing to Read or teacher-selected spelling, letter recognition or phonemic sounds games.

g. Other stations: Stations and related student activities were noted when they were presented and operational in a Writing to Read lab.

If a station was not operational it was not coded in terms of student behavior but identified as "not operating."

Adult Supervision of Stations

During observations of student behavior at the Writing to Read stations the title of the adult supervisor at each station was coded. Choices were: Classroom Teacher, Computer Lab Aide, Classroom Aide, Volunteer, Other, or No Supervision Provided.

Supervision was judged not in terms of a continuing physical presence at a station, but rather in terms of behaviors which indicated specific personal responsibility for the station activities. For example, if a teacher had prepared composing activities in use at a station and if she monitored their use, "Classroom Teacher" was the recorded supervisor.

If a station was not operational, it was not coded in terms of supervision, but identified as "not operating."

CLASSROOM WTR PROGRESS RECORD

Teacher _____

Month _____

Dates

STU NUMBER	Names	SEX	AGE																								W-L	Comments

INSTRUCTIONS FOR COMPLETION OF MONTHLY WRITING TO READ PROGRESS RECORD

ONCE A MONTH

A. Teachers select one writing paper from each WTR student. The paper may be written in or outside the WTR program. Keep monthly samples in a dated folder at the school.

B. Rate each student paper according to the Levels of Writing Scale. Record rating in the W-L column on the Classroom WTR Progress Record.

LEVELS OF WRITING SCALE

0 Below rudimentary level

1 Rudimentary (writes own name; reproduces words from recall)

2 Early understanding of sounds, spelling (writes words phonetically)

3 Beginning phrases, sentences (writes subjects, predicates)

4 Patterns, sequences of expression (writes related sentences; writes simple story)

5 Developed writing (writes simple story with beginning, middle, end; uses detail)

DAILY

A. Write only date WTR classes meet.

B. Write cycle number under date child enters cycle.

C. Write 98 for individual student absences. If the WTR class does not meet, do not use the record sheet. When the class meets again, record the date in the first available space.

D. Write 99 if a child is no longer in the program. Under Comments, note reason, e.g., moved, changed class, etc.

E. Write brief note under Comments for any adaptations in the regular program for individual students or groups, e.g., go(es) to Center only twice a week, not in work journals yet, etc.

WRITING TO READ
TEACHERS' OPINIONNAIRE

OPINIONNAIRE INSTRUCTIONS

Please answer the four items on this opinionnaire by checking or writing the response that best represents your opinion regarding the Writing to Read Program.

1. Please check any of the following that apply. Make any comments you wish below or on the reverse side of this sheet.

READINESS SKILLS	EXTENSION OF DISTICT ADOPTED PROGRAMS	ADDITION TO DISTRICT ADOPTED PROGRAMS	SUBSTITUTES FOR COMPONENTS OF DISTRICT-ADOPTED PROGRAMS	NO NOTICEABLE HELP TO THE INSTRUCTIONAL PROGRAM	DETRACTED FROM THE INSTRUCTIONAL PROGRAM
A. LANGUAGE SKILLS					
B. SOCIAL-EMOTIONAL SKILLS					
C. COGNITIVE SKILLS					
D. MOTOR SKILLS					

2. For this time of year, how does the progress of your present Writing to Read class compare with similar groups you have taught?

3. What, if any, do you consider important positive and/or negative features of including the computer in the Writing to Read Laboratory activities?

4. Does the Writing to Read Laboratory promote individualization of instruction? Circle one: Yes No. Please explain:

PRINCIPAL'S TOPIC LIST

WRITING TO READ

Principals of schools having the Writing to Read program are being interviewed to help with an initial, first-year pilot evaluation by giving information based on their observations and opinions. Your remarks concerning the Writing to Read program under the following topics will be typed and returned to you for verification before being included with the 13 other principals' remarks for inclusion in the report.

1. How Writing to Read fits in with the other instructional programs.

2. Program in-service requirements.

3. Observable benefits to students.

4. Usefulness of materials and equipment in reaching educational goals.

5. Program support for your 1983-84 instructional goals.

6. Influence on school management priorities.

7. Impact on school budget and other resources.

8. Quality of support services from the central office.

9. Contribution of aides to the program.

10. Impact on teacher morale.

11. Pupils' manipulation of equipment.

12. Reinforcements of student learning.

13. Perceptions of parents and staff.

14. Learning theory underlying the Writing to Read program.

APPENDIX C:

- Teacher and Building Coordinator Writing to Read Program Descriptions
- Principals' Statements from the Writing to Read Topic Interview
- Independent Consultant Summary of Principals' Statements

WRITING TO READ
PROGRAM DESCRIPTION
1983-1984

I. MANAGEMENT SYSTEM

Teacher begins by handing out folders with assignments -- children raised hand as they finish assignments. Aide or teacher marks child's book and "helps" child to choose a new assignment.

A. Orientation Procedures

Coordinator and lab aide instructed in approximately two weeks the lab expectations, student movement and station work before having the lab aide and teachers become responsible for the program.

Folders passed out in lab

Hand out folders to partners in classroom

One week in October

One week practice in October

Teachers instructed in use of typewriter, computer, etc., small groups prior to use of lab -- need more ready-made devices, orientation, diskette, whatever.

Standard

Hurried, good ideas from each teacher to meet children's needs

In room

Equipment in room; small group; take home copies of "typewriter keys"; parent conferences

None really -- room was shown; a little said about each station.

Coordinator introduced student to computer procedures and typewriter procedures during weeks one and two.

WTR Manual

By classroom and computer room assistant prior to beginning program

Students went to computer room five days to learn about the typewriter, computer and discussed rules.

Done in the classrom by the teacher and assistant

General two-week intro to machinery -- 15 minutes per day

I. MANAGEMENT SYSTEM

A. Orientation Procedures (continued)

Meeting with teachers. Whole group station by station for students. Station exploration by small groups first week.

We have done orientation.

Orientation began with: first week emphasis on using computers and typewriters properly; second week movement of certain groups through dittos of Work Journals.

Small groups of six went to computer room to one station a day.

Groups of five, for three weeks, one station a session

Took children in small groups two weeks in advance of beginning program

1. Packet of pictures and narration developed by coordinator for teacher to introduce to students and elicit classroom discussion; 2. Chapter I Coordinator introduced Chapter I students to typing, typwriter usage (because they generally need a "double-dose" of reinforcement); 3. Lab aide followed prescribed orientation recommended by program in lab.

For two weeks prior to beginning WTR took small groups into lab.

Through WTR coordinator/aide

Two weeks -- done by coordinator

Children are tagged as to what rotation schedule they are in.

I did whole class lesson on Work Journal and procedures and equipment. Small groups worked three computers, listening, typewriters with coordinator and lab aide.

Chart with pocket holders with each child's name and plastic color/number coded "packets" put in each child's packet to denote first opening station.

I. MANAGEMENT SYSTEM

B. Student Groupings

Ability level/Work Journal placement, computer placement

Pairs arranged by teacher before lab time, marked with color markers on folder

Pairs at same place on Computer Journal

Designed by teachers -- daily -- for computers

Same level abilities -- same cycle -- grouped together

Similar ability

Impossible to maintain students "pairing," individuals move after completing task

Varied, changes constantly

These do not stay the same.

Individualized

Students are in groups of 4-6 at the work stations.

Boy-girl, Work Journal placement

Partners of similar skill level; assigned by classroom teacher based on cycle

Four different groups by ability

Kids grouped by cycle words.

By Journals

Group students according to level in cycles and where in Journal.

Placement in Work Journal -- cycle

Ability in first grade. Heterogeneous in kindergarten.

Four groups -- we have student grouping color coded.

According to ability by two's, then group of six for typing, computer, etc.

Teacher's judgment

According to skill level

I. MANAGEMENT SYSTEM

B. Student Groupings (continued)

1. Based on Houghton-Mifflin reading groupings used prior to the beginning of the "Writing to Read" program; 2. As students progressed, some dropped behind, some moved ahead, one or two couldn't get along with partners, so teachers made adjustments accordingly; one student moved so fast she has worked independently throughout the program.

Most teachers use four groups which rotate each 15 minutes -- one teacher uses flexible groups.

Students are grouped according to cycles.

Reading groups basically

My direction -- daily regroup

Matched by level

Students are grouped together as to their location in the Work Journals.

Every day groups change depending on computer and Work Journal abilities.

Kids chose own partners -- This has fallen apart now with absence and various rates of progress.

Journals checked daily and partners reassessed and place for next day.

Only at Work Journals (others are assigned to a station each day)

Five to six groups -- I don't know how they were originally grouped

I. MANAGEMENT SYSTEM

C. Student Movement Between Stations

Move as partners from station to station

First station assigned (sometimes second station is too far for some students)

Even flow -- directed by teacher

As they finish stations they move to me and I point the way

As students complete -- definite pattern (computer to Journal to writing; rest varies)

When finished they move to appropriate station -- they decide within framework of program

No pattern -- children end at different times and constant movement on and off.

This is still not as I'd like to see it some days. Too much depends on children's spot in book.

Upon request to teacher following a pre-planned sequence -- done each day

My kids move between stations only when I ask them to change -- no free moving.

Students spend approximately 12-18 minutes at computers then move to other stations for about same amount of time.

Now free flow; prior to Christmas, 15 minutes timed

Used times when many students lined up then went to next station rotating

Free flow -- students' choice

Move freely

Flash lights for groups to move.

Move at own pace after completing computer center and Journal

Varies with teacher. Some already are student individualized, others ring the bell every 15 minutes and the entire group moves.

Students rotate easily from station to station.

I make a list each day. Be sure to have computer at work for all hour.

I. MANAGEMENT SYSTEM

C. Student Movement Between Stations (continued)

Informal -- students move when they are finished at a station.

1. A placement-marker system developed by Coordinator which listed picture symbols for each station that the student was to move to in the lab; 2. Free flow initiated later, as recommended by program (WTR); 3. Kindergarten free flow initiated by a card system whereby each student carries a card with the picture-symbol of the first station. She is to go to first in lab (because the K teacher said kindergartners often have trouble remembering the distance from the classroom to the lab)

Most teacher groups are flexible, but rotation is done by the clock.

Every 15 minutes. Every student goes to computer before they come to Work Journal.

15 minutes computer to Work Journal -- typewriter -- other (games, listening)

Easy flow -- keeping on track from room activity brought in my own style based on student needs

Every 13 minutes to allow for clean up

They move in groups through the stations

Groups switch every 15 minutes

Free -- go anywhere less than four kids when they wish except computers and Work Journal (first controlled by aide, second by teacher)

Personal choice, except rotation from first station

Free to move where there's an opening -- (except at Work Journal and computer)

Lab assistant calls who she needs and I pull after she has hers

II. STATIONS

A. Computers

Supervised by lab aide. I'm a bit frustrated by aide's insistance that the low children return to computer until skill is mastered. Some children are not able, developmentally, to do it. This causes a great deal of frustration for these children and me!

Would like diskettes for use before/after cycles

Aide handles this area (I'm not too familiar).

Use one to three

I am not sure as the lab assistant does this. This program has not really been explained to me -- I went in cold turkey.

1. Cycle Words

No logical developmental progression

Do not follow consistent language rules

Slow moving

Good

Students, in one group of two groups making some progress

O.K.

Discrepancy between phonetic spelling and correct spelling is bothersome.

Need review built into system

Parents are not in favor of phonetic spelling.

Unclear about the order

Why are we teaching these words in isolation? (Instead of "families," etc.)

No personal experience

2. Mastery Tests

Do they need to master to move on to the next cycle?

I think I would feel more comfortable to have a child do this independently. (Yes, I know what the Teacher's Manual says about this.)

II. STATIONS

A. Computers

2. Mastery Tests (continued)

Difficulty with key/screen coordination

The jump into review is way too long and as a result, have to stop after test and reteach "by hand"

Needs to give a second chance to a child who mistypes

Sometimes kids can't do this, but can "pass" in Journal

Some students have been exposed to tests.

Do they need to master?

Placement on tape confuses kids

As set up

O.K.

What does one do when student doesn't pass? Some will never pass!

Should be more integral part of program

How many times can they fail?

Children may take a test as often as three times then move on (very frustrated)

3. Make Words

The program needs to add more words.

Carry over activity for writing table

Not enough of this type of experience

This really slows up the computer

Cannot do

Help -- needs most improvement. Critical to program/ thinking generalization. Needs to be addressed further.

The letters flash and students wait for answers!

Many just look at the flashing red letters rather than sounding out by self

II. STATIONS

A. Computers

3. Make Words (continued)

Needs a lot more of this

Most don't understand

Still difficult for most children

4. Silly Sentences/Games

Fun

Students would like to see more games on the computer.

Would like more at various levels

Need to be more frequent -- see words used in sentences earlier in program so have purpose for learning that particular word

Can't be used until students complete 10. IBM should have games, etc., after 1. The program is not fun and reading can be really fun.

I use separate from last word

Have used only by the top students

After cycles; on game day which is Friday

Have not used

When should these be used? Not in Teacher's Manual; have not used them.

O.K.

No -- aide/coordinator has not initiated

Don't know yet

Don't use

Haven't done

II. STATIONS

B. Work Journals

Difficult for many children

Questionable educational worth as written

First one is horrendous, second and third somewhat easier

Cycle, Journal too long -- presented too fast -- include sentences?

Should be italic letter forms!

Weird tapes -- directions and quality are poor

I liked when it was all on tapes so the children really heard the words. They must be timed for 12 minutes! -- No longer

Why bother having partial (blank) tapes? No reinforcement aurally.

All 29 kindergartners are still using the Journals.

Students need teacher's help entire time

Practice sheets on words

HELP! Poorest part of program

Oh boy, way too long, poor enunciation

Need tapes to continue after Cycle Four

Several kindergartners and a few first graders need kinesthetic experience (clay, sand, etc.) prior to being able to print in the Word Journal. Several first graders/kindergartners needed to learn letter configurations before being able to find letters on the computers and typewriters, so work in clay, corn meal, etc., first, then walking to computer and typewriter to point to (find) the letter, then practice writing the letter.

Tapes to go with these inconsistent in their use -- also, difficult to find where left off the day before.

O.K.

O.K., but needs to be expanded

Seven out of 28 don't use

Want the letters to be italic to match our new writing series

II. STATIONS

B. Work Journals (continued)

Very, very difficult for children (frustrating busywork)

Too difficult and not appropriate for kindergarten children

II. STATIONS

C. Typewriters

Variety of letters, words, and sentences to copy depending on ability level

Need words-to-phrases-to-copy -- need lowercase letters

Need lowercase tabs (computers, too); also need better model cards

One of the most beneficial elements

Lowercase letters on keys

Working well

Great.

Love them

Students need to develop letter recognition and fine-motor skills.

Since we started students choosing the station they go to students don't go to the typewriter very often.

My kids don't want to type any more.

Editing; copying; comparing

Tabs coming off

How to move kindergartners beyond "free exploration?"

O.K.

Good -- but wrong time to be using

FREE EXPLORATION

Hard to get students to start sounding out words and write original sentences.

Some children enjoy them, some don't

Type (free typing)

Fun for kids and less frustrating now with lowercase letter on keys

II. STATIONS

D. Bingo/Make Words Games

Teacher made games and commercial games.

Too much teacher preparation

IBM should have more games for us. I don't have time to make more games.

More games

This station needs adult supervision to be of value.

Need supervision

Need an adult

Need an adult supervising to be effective

No room to set up game table

Parts of Bingo game are missing.

Bingo not a complete set. No directions, no draw cards, no paper to keep track of sounds. Don't want to do it. Used. No list of sounds on different sets.

As specified

We are using Bingo games.

Need a teacher at station at all times

The large game board needs to be better organized.

Not used -- teachers need push to use them

This has been solely left to the teacher. I can't find any hours in the day.

No

O.K.

Don't do

Often no time

Puzzles on games station

No personal experience

II. STATIONS

E. Other

Fine motor on station

More direction and use of printer needed -- workshop? Particularly for those not ready for computer

Printer??

Teach developing varied components

Book corner italic writing station

Cut/paste-type activities

Some kids cry.

Coloring -- ABC matching -- dot-to-dot

The program as presented is a good outline for a language program -- teacher's frustrations come because so much is left ill-defined.

Listening -- writing -- booklets

More listening/reading tapes needed

Plan daily for composition -- working with clay, language stories, collages.

We need to learn to use printer.

Composing -- free coloring, classifying, ditt-os, chalkboard

G. Listening

NEED THE MATERIAL

III. PROGRAM RESPONSIBILITIES

In the center I help children reassign themselves to station, help children with work, mark booklets. Outside the lab I assign the following day's initial assignments, rate work monthly, I help make words center.

A. In the WTR Center

Monitor the entire program

Facilitate student movement, monitor lower ability students at workstations

Journal table for reinforcement work when mastery test failed

Liaison between building and "outside" help in decision making, assist aide with materials and reponsibilities, etc.

I can't get around to all the students.

Manage all students and materials

Facilitator

Maintain centers except computer

All stations except computers

Trouble shooter, mechanics, etc.

Tracking my class. Providing all reinforcement and for extra needs.

Cover six areas (stations) -- FRANTIC!

I have one and sometimes two mothers each day -- I go from station to station.

Overall supervision and coordination of program

Monitor whole program -- typewriters, listening station, Work Journal

Work Journals placement and start; child assignment to new station, tape, book and paper supplies

Meet on regular schedule, every other Thursday a.m., with Writing to Read staff; mediate!!/sounding board!!; carry information

Teachers and lab aides share responsibilities for lab. We do not have a coordinator.

III. PROGRAM RESPONSIBILITIES

A. In the WTR Center (continued)

Go from group to group and have small groups in Houghton-Mifflin

All centers but computer

Orientation, problem solver, consultant, call and conduct meetings, encourage, discourage, contact with IBM/PPS#1

Date papers, attendance, writing group, and help locate and prepare materials

Needed at all stations except computer constantly

Monitor stations

Supervise aides. Meet occasionally with staff to discuss problems, devise solutions, fill in for absent aides. Meeting with parents to explain program. Oriented students to program. Have new personnel answer to daily questions.

I go all over the place, but basically I'm helping the students as they go to Work Journals.

Oversee the grouping at all the stations and help get started on Work Journal and writing

Monitoring students, regrouping for next day

Oversee composition and typing and my games

I take care of Work Journal, typewriter, and writing and listening centers.

Manage centers (plan and group for children)

Lab aide does computers -- I do rest

Only have time to supervise Work Journals

Work Journal table only; for groups I say what the tape should say. Individuals use tapes.

Work Journals -- I took over where and what everyone said

III. PROGRAM RESPONSIBILITIES

B. Outside the WTR Center (Preparation/Follow-up)

Prepare/make word games, prepare folders, evaluate writing papers

Daily pairing of students for lab time -- scoring student's written work

Each day go through folders and assign next day's first station and choose and grade writing monthly

Going well

All done by teacher

Implementation

Plan for each (25) child each day, check each Journal and typing

Attendance, placement in program evaluate student work, create worksheets (sounds), typewritten sentences

Check paper so children know someone is concerned about what they are doing. Check Work Journals, make new teams, depending on placement (time consuming), six computers (5?) would eliminate a lot of team assignment time.

Review letters, words and sounds when we return to classroom

Prep for centers; check Journals periodically

(A) rate papers, (B) scheduling (daily), (C) gathering ideas for other stations

Schedule and prepare activities

MUCH! In follow-up Writing to Read needs much extra help from teacher back-up.

I arrange groups, pairs, plan composition.

I am responsible for all activities at the writing center. I have no help except a computer aide.

Review Work Journals; placement of groups; score writing samples

Very little -- checking Work Journal and assigning first station for next day

Organize students' beginning station each day and reassess partners

Check and make sure who is on what page where

What my predecessor was doing

IV. IS WRITING TO READ YOUR TOTAL LANGUAGE ARTS PROGRAM?

No, by no means!

No, how could it be?

What other materials/programs do you use in the WTR Center?

Extension of programs in classroom (i.e., cut, paste, color, games)

Games, language experience activities, etc.

Teacher-made materials

None

Phonics activities and ditt[illegible]

Houghton-Mifflin

Games, no programs

None! as programs

Games at game table, library books, italic table

Crossties

Lots of games, art, writing

Ready Steps, other outside teacher-selected material, worksheets

I use vocabulary from Houghton-Mifflin, lots of games from various sources.

Teacher-made material, games

Houghton-Mifflin Getting Ready to Read, and other H-M supplementary worksheets, etc. Materials teachers select to supplement letter-sound skill learning

Sequencing, categorizing letter sounds, Play-Doh letters

Houghton-Mifflin Reading Series, but only very limited due to time structures of total day

H-M, clay, my own ideas

DLM

At times, H-M materials (letter boxes, etc.)

IV. IS WRITING TO READ YOUR TOTAL LANGUAGE ARTS PROGRAM?

What other materials/programs do you use in the WTR Center? (cont.)

Listening tapes other than those provided for WTR, other computer software, italics handbooks, chalkboard, word boxes with cards, easy reading books, classroom worksheets.

Typing from word cards, chalkboard, phonetic bingo games, storytapes, italics, puzzles, other computer educational games

Italic handwriting book

IV. IS WRITING TO READ YOUR TOTAL LANGUAGE ARTS PROGRAM?

What other materials/programs do you use outside the WTR Center in your regular classroom?

Crossties, Houghton-Miffline when possible

Some Alpha Time, Houghton-Mifflin Reading

Houghton-Mifflin

MacMillan-Lang

Outside the room I teach Houghton-Mifflin -- which they love!

Reading and Spelling adoptions

Regular kindergarten program -- some Houghton-Mifflin

Own dittos, words/sentences from kids, and from class experiences; commercial dittos

Peabody kit -- a language program at the kindergarten level

Crossties, Houghton-Mifflin, magic circle

Getting Ready to Read

Due to half-day classes, there is not time allowed for other material.

After #7, they enter H-M Bears

We are using the PEOTONE Program/Crossties and Houghton-Mifflin Reading Program

The materials that the Curriculum Dept. tells us to use

District adoption

Houghton-Mifflin Reading Series Language Series. This Reading Time outside the work lab is 45 minutes per day.

H-M, my own writing program, my own phonetic program

We do make words as a large group, alphabet letter a week, H-M, things I find in magazines.

Houghton-Mifflin/Crossties/Math Their Way

H-M and spelling book. Creative writing and dictation stories in the classroom.

Everything I can/know

Story dictation, story listening, fine-motor worksheet

IV. IS WRITING TO READ YOUR TOTAL LANGUAGE ARTS PROGRAM?

What other materials/programs do you use outside the WTR Center in your regular classroom? (continued)

Literature, story telling, occasionally children dictate stories on their pictures, fine-motor skills

Language experience -- finger plays -- songs, poetry -- many reading to the children sessions

V. SPECIAL ADJUSTMENTS YOU HAVE MADE IN THE WTR PROGRAM

I have already about seven children to "pass" Work Journal test with my help. These kids get to practice one word and then immediately are "tested" on that word. Then we practice the next, then test, etc. NP is put in Journal test and note is written to parents that child needs reinforcement.

Children's book, tapes, etc., are controlled by teacher due to lack of space. Do not worry if all kids do not get to computers and Work Journals each day.

None -- 15 minutes on each station

A. To meet individual student needs

Teacher-made materials

Flexible time in lab

It is virtually impossible to meet individual needs of students with large clases and no help. Students in class are in program, not ready for program, and finished with program.

Added second writing station

More working in homeroom, reviewing on computer, much typing, Journal tapes

My aide tutors slower students.

I divided my class into two groups. Half stays in room and half goes to computers, then switch.

Phonics in the classroom

Some students are spending more time on other centers rather than computer.

Make-up sessions for absentees

Make-up sessions for absences, letting fast students possibly skip cycles

Do not take all students into lab

Groupings

Take away Work Journals

Regroupings -- requires extensive planning

Provided sentences to copy on typewriter

V. SPECIAL ADJUSTMENTS YOU HAVE MADE IN THE WTR PROGRAM

A. To meet individual student needs

Very difficult to individualize

Occasional Work Journal catch-up days with no computer

Some on tapes are worked with orally

B. In terms of number of days/week in the WTR Center

Would like to cut it down to three days

45-minute period

I would like three days a week only

Game Day -- Friday

45-minute sessions

45-minute sessions instead of 60 minutes

Four days -- most students, one day -- six students who do not go other days

I have no say!

13 minutes at each center to allow time for cleaning up and passing to new station

No more than four!

C. In terms of special scheduling through the WTR stations

The students not in regular program work on words in WS and all but computer and Journal.

Lab open for new or catch-up lessons outside regular time.

Three groups a day instead of four

Some stay after 60 minutes to get every one on computer.

Stop every 13 minutes for clean-up

V SPECIAL ADJUSTMENTS YOU HAVE MADE IN THE WTR PROGRAM

D. Indicate approximate number of students working in "adjusted" WTR program

5

6

22 students A.M. class, 18 P.M. class will not go to "Writing to Read" (they don't have the skills)

20

Maybe about eight.

25

1/3 of class progress well, 1/3 - average, 1/3 - low (really concerned about low children)

VI. COMMENTS

The teacher time required by this program is great. To really plan well for the next day takes 40 minutes. The games table needs an adult as does the Work Journal area. It is a very people-heavy program to work well. Writing is really showing growth. I'm still very unsure of my own feelings about it.

One hour too long.

Would not have kindergarten students without some previous experience (pre-K or Headstart) in program.

Our WTR program is going well. Have some concerns.

Important for teachers in program to philosophically understand writing process as it occurs in learning. Need to be of a holistic/ learning experience approach for this to work! The perfect balance.

I feel lost!

Need more time to meet within our staff and in workshops.

This program should never be anything but an extension of your regular classroom work. The needs of the child dictate this. I find some children will never need WTR -- some will do well -- a few need human one-to-one help -- they're making it!

Does not follow the development process of kindergarten children. INAPPROPRIATE! Oral Language Development should be steps in kindergarten vocabulary enrichment. This program goes against their abilities by requiring them to slow down their thought process to think slower so that they can compose as they think rather than allowing them to freely express their ideas.

Concerned about newness of program and inconsistency among schools and within; concerned about dollar value and no planned follow-through and money spent.

Everyone goes to all areas every day.

Very difficult program for kindergarten. Please reconsider for kindergarten next year.

Kindergartners should be in there no more than 40 minutes, three days per week.

My schedule times are awful -- I come at 12:00 (full-day kindergarten) -- no rest prior to coming -- our rest time does not come until 1:00 -- too late for five year olds. I would prefer three to four days per week. (I just started before Christmas and this should be taken into account in your evaluation.)

PRINCIPALS' COMMENTS

PRINCIPALS' STATEMENTS FROM THE WRITING TO READ TOPIC INTERVIEW

How Writing to Read fits in with the other instructional programs.

- Gives pupils another area of language development.
- Takes the place of our pre-reading program.

- A large number of our kindergarten pupils were not ready.
- Needs to be coordinated with a reading program.

1. Developing awareness for communication skills, especially writing.
2. It is a language experience approach.
3. It is a good starting place.
4. Fits in for creative writing.
5. Develops language.
6. Develops vocabulary.
7. Fits into reading in first grade.
8. Has some impact on music and rhythms.
9. Gives pupils another area of language development.
10. Fits in the supplementary adoption.
11. Student go through basal reader faster after WTR.
12. Refocuses instruction on young students' writing.
13. No conflict.
14. Excellent fit.
15. Coordinated with Chapter I.
16. It does fit.

17. Becomes a writing program of the school.
18. More than satisfies requirements of a writing program.
19. Takes the place of our pre-reading program.
20. Correlates with language arts goals.
21. Art is being incorporated in one of the centers.
22. Basic goals correlate very well with district goals in basic skills.
24. Approach is different from our regular programs.
25. A large number of our kindergarten students were not ready.
26. Not a year long program.
27. Requires teaching cognitive skills before introduction to computer.
28. Program needs other things along with it.
29. Took considerable time from other things.
30. WTR needs more language development along with it.
31. Doesn't fit.
32. Isolates an hour of instruction.
33. Program needs readiness skills.
34. Needs to be coordinated with a reading program.
35. It's not a total reading/language arts program.
36. It needs other things like Cross-ties.
37. It needs to be used with the Houghton-Mifflin series.
38. The program is a rich program, but dilutes the others.
40. Program fits with Chapter I basic skills.

PROGRAM IN-SERVICE REQUIREMENTS

- o The in-service for teachers and aides was sufficient.
- o All teachers must take in-service.

- o In-service should be a continuous process.
- o Teachers need adequate in-service before school starts.

- o Pulling teachers out of class for in-service is not adequate.
- o Not clear correspondence between guidelines given by IBM and by in-service.

1. All teachers must take in-service.
2. Most of the teachers were enthusiastic.
3. In-service worthwhile.
4. Aides need good in-service.
5. Curriculum Department tried to educate aides.
6. Curriculum Department tried to make follow-up in-service available.
7. District has done an excellent job.
8. Karen Welch did an excellent job.
9. The in-service for teachers and aides was sufficient.
10. Karen listened and then set up regulations that were palatable.
11. Karen talked to our parent group and allayed their concern.
12. Team work and team meetings are necessary.
13. Must be supported by coordinator and principal.
14. Guidelines were cleared up by Karen in April.
15. In-service successful at some sites, but not others.
16. In-service should be a continuous process.
17. Teachers need adequate in-service before school starts.

18. Should be total school in-service to maintain creative aspects.
19. New teachers can see the reading laboratory in action.
20. We did not understand the progression of student writing at first.
21. Concern for training of teachers receiving students and for new teachers.
22. Ongoing meetings throughout the year were helpful.
23. District training in the late summer is essential.
24. Principal needs to add his or her own in-service with each staff.
29. Substitute funds would help.
30. In-service should include skills in teaching writing.
31. In-service should be continuous and scheduled.
32. We should pay teachers for Saturday or summer time because you can't expect much from working teachers.
33. We made plans to have an aide trained for the reading program.
34. Very extensive pre-planning of activities is needed of all personnel involved.
35. We need comprehensive staff input.
36. Would like well-trained aides and teachers to start the program.
37. We had meetings and demonstrations for upper grade teachers so they would understand the program.
38. In-school staff meetings are very important.
39. Teachers had to put a great deal together at first.
40. Teachers shouldn't be in the program unless they want to.
41. A large number of staff meetings and training sessions are necessary.
42. If it is to be our writing program, teachers need to get a different message.
43. Not all teachers wanted to participate.
44. Not a clear correspondence between guidelines given by IBM and In-service.

45. Attention was centered on administrators in presenting the program, rather than the teachers and aides who have to run it.
46. In-service was not clear at first.
47. Guidelines given in February should have been given before starting the program.
48. Pulling teachers out of class for in-service is not adequate.
49. In-service should be more expansive.

OBSERVABLE BENEFITS TO STUDENTS

- Children enjoy it.
- Students who are able, get right into the stories.
- Students are definitely making gains in the language arts skill area.

- For pupils not ready it's a hindrance.
- It's boring to average and above average students.

1. Children excited about what they can do.
2. Children enjoy it.
3. Typing and printing out on the computer is motivating.
4. Increased interest in reading and writing.
5. Kids move at their own pace.
6. Daily writing of their own stories.
7. Develops positive self-concept.
8. Helps children focus on tasks.
9. Measures gains in short steps.
10. Pupils develop skills in sounding out words.
11. Many student are writing and reading.
12. They go more quickly into basal readers.
13. Opportunity to display their own work.
14. Students enthusiastic about writing.
15. Instills love of learning.
16. Allows students to communicate ideas and feelings freely.
17. Students who were able to read before the program seemed to be highly motivated to compose.

18. The disruptive child appeared to stay on task because the program was highly structured.
19. Students are definitely making gains in the language arts skill area.
20. About half and half, those ready are doing well using stories in a neat way.
21. Students who are able get right into the stories.
22. Students are becoming computer friendly.
23. It fits for those who know their alphabet, and assumes students are ready.
24. All first graders are reading words and sentences.
25. Pupils are learning to use the typewriter.
26. Five year olds are interested in reading anyway.
27. It's boring to average and above average students.

USEFULNESS OF MATERIALS AND EQUIPMENT IN REACHING EDUCATIONAL GOALS

- o Materials are useful.
- o Computer is a good way to teach phonics.

- o We had to organize materials and set up structured activities at each center.
- o We need a control group in order to tell.

- o Need to revise work journals.
- o We need materials to facilitate steps after the computer.

1. Materials are useful.
2. Useful in teaching reading through writing.
3. Computer is a good way to teach phonics.
4. Typewriter and word processing on computer is the key to success of the program.
5. We need a control group in order to tell.
6. Computers and typewriters give no negative feedback.
7. Computer with the printer is better than a typewriter.
8. Computer is just a tool.
9. Constant monitoring is needed.
10. We had to organize materials and get up structured activities at each center.
11. Typing centers seem to be students' favorite center.
12. Probably after Cycle 7 or 8 on the computer it's fantastic in motivating.
13. A good tool, but limited by design.
14. Time is taken to develop and produce materials.

15. We need to provide readiness for the very slow, immature pupils.
16. We need to provide program components for the very fast student.
17. Teachers and aides need to receive more support for materials, or an explanation of what needs to be developed.
18. We need more and better evaluation tools at each level.
19. The book needs revision.
20. We use other ways accompanying writing to read to help reach our goals.
21. Typewriters had to be changed.
22. Need more activities after Cycle 10.
23. We can accomplish the same thing without the hardware.
24. Does not meet the instructional goals at kindergarten level.
25. Revise work journals.
26. Too few stories.
27. Talking is too slow.
28. Need word processing program to follow Cycle 10.
29. Computer does not play as large a part as we were told it would.
30. We need a fourth computer in the lab.
31. Need supplementary software after students exited from program.
32. We had to develop many new games.
33. Computer should be used as a word processor.
34. Tapes are boring.
35. Students did not have skills to be self-directed and independent workers.
36. We need materials to facilitate steps after the computer.
37. We need more variety of activities using words.
38. We need new mastery tests and more review materials.
39. We need exercises for writing in a creative way.
40. Supplementary software is needed.

41. We need materials after kindergarten because there is an extensive gap.
42. We need more software to follow Cycle 10.
43. The additional software from the district has not been available.
44. We could have done better with more materials to keep teachers enthusiastic about WTR.
45. I question no follow-up at the listening station.

PROGRAM SUPPORT FOR YOUR 1983-84 INSTRUCTIONAL GOALS

- o Directly supported writing goals.
- o Direct support for the reading program.
- o Meets some of the first grade and kindergarten goals.
- o We had to rewrite our instructional goals after hearing about the program.

1. Directly supported writing goals.
2. Direct support for the reading program.
3. Fits in the basic skills taught in the district.
4. An asset to the school program.
5. It supports the teaching of writing.
6. First grade reading goal achieved, but not kindergarten.
7. Meets some of the first grade and kindergarten goals.
8. We had to rewrite our instructional goals after hearing about the program.

INFLUENCE ON SCHOOL MANAGEMENT PRIORITIES

- o Principals must be on top of the program to make it work.
- o It was difficult to schedule into the instructional activities of the school.
- o Principals should be the instructional leaders, not an IBM program and the Curriculum Department.

1. A strong influence on management.
2. We were told we would have the program.
3. The period of time was mandated and the schedule had to be built around it.
4. Principals should be able to get more support and less direction from the central office.
5. We have to allow for maintenance, etc., like any other program.
6. Getting M.B.I.R.'s through district red tape.
7. Dealing with IBM's and Curriculum's support services takes time.
8. Need to arrange for computer use other than during lab time.
9. We used the time equipment was delayed for orientation and planning.
10. Principal must be on top of the program to make it work.
11. Staff needs adequate help.
12. Principal needs to attend meetings, meet with parents, etc.
13. We have tried to schedule other programs around its scheduled times.
14. Aide is used for other building responsibilities also.
15. It was difficult to schedule into the instructional activities of the school.
16. There is not enough time in the school day to fit it in easily.

17. It crowded our schedule rather tightly with other courses and lunch break.
18. It took an effort to get things straightened out and support the staff.
19. Planning is needed for students coming in at mid-year.
20. We have to have an understanding of who does what, why, and when in using the program.
21. Next year kindergarten will not be brought in until mid-year.
22. Kindergarten should start in January.
23. We will start first graders next year.
24. A writing to read aide must not be bumped by another instructional aide with more seniority.
25. We had one less aide to support the other programs.
26. We felt pressure from the central office to start the program.
27. Plans had been solidified before the Writing to Read program.

PERCEPTIONS OF PARENTS AND STAFF

- The staff perceives it positively because of computers and the motivation to write.
- Staff is positive now.
- Teachers divided for and against.
- Frustration because of lack of materials.

- The computer has to be "good stuff" in parents' estimation.
- Parents interests are peripheral, they do not understand the program.
- Had to take an aide from other programs that I had told parents would have aide support.

1. Parents who were doubtful at first became positive.
2. No complaints from parents now.
3. The first grade staff would like to do it.
4. Parents positive now.
5. Parents like the stories students bring home.
6. The computer has to be "good stuff" in parents' estimation.
7. Teachers said they had never had students write this much before when talking to each other.
8. Parents are excited about the program.
9. Teachers were afraid of the program at first, but now the first grade teachers are enthusiastic.
10. The other aides are interested in the program.
11. Parents happy about their children success.
12. Parents think it's fantastic.

13. Staff perceives it positively because of computers and the motivation to write.
14. First graders will do it early part of next year.
15. Teachers are interested in follow through in second grade.
16. Some staff members still wonder about spelling.
17. Still getting questions from parents about spelling.
18. Minority of parents are concerned that it took so much time.
19. Teachers divided for and against.
20. Staff as a whole liked the program, but teachers in the program were concerned by its shortcomings.
21. Parents' perceptions unknown.
22. Parents' interests are peripheral - they do not understand the program.
23. Parents very skeptical at the beginning, especially spelling.
24. Staff is mixed, both positive and negative.
25. It is basically the same old language experience based program, but it forces the teacher to do it.
26. Kindergarten teachers do not like the program.
27. Had to take an aide from other programs that I had told parents would have aide support.
28. Some parents visiting our school choose to enroll their child at another school that did not have a WTR program.
29. Frustration because of lack of materials.
30. Teachers frustration with everyday requirement.
31. Parents still have some concern over spelling.

LEARNING THEORY UNDERLYING THE WRITING TO READ PROGRAM

- o It's a good tool to get children to read better by reading something they wrote, and what other people wrote.
- o Different children need different things to help them learn.
- o There is nothing new about the theory.

1. It supports my philosophy about how youngsters learn to think, talk, write, and then read.
2. The students' success as they are learning is reinforcing.
3. The sequencing of skills matches how students learn naturally.
4. Pupils need to learn to think first, then speak, then write, then read.
5. Pupils need to read what they have written.
6. It's a good tool to get children to read better by reading something they wrote, and by what other people wrote.
7. Different children need different things to help them learn.
8. Consider the different learning styles of children.
9. Repetitiveness of the software for young children's learning is an advantage.
10. Building reading from the language of children through writing is good.
11. First grade children's reading and writing show that the theories may work.
12. Capitalizes on and increases pupils' interest in learning to read and write.
13. Writing and reading support each other.
14. Children making spelling transfers without any problems.
15. Theory is sound.
16. There is nothing new about the theory.

17. Clarification is needed concerning emphasis to be placed on reading and writing.
18. Activities, such as using the typewriter, the work journal as it is, are questionable.
19. Listening stations need reinforcement through sharing with other pupils, ect.
20. It should be tied to a reading program, although it does help reading some.
21. For many children it is easier to get their thoughts down and write phonetically "creatively" on the typewriter then on paper, when they need to be concerned with penmanship also.
22. It is a program that enables the child to express herself through writing more successfully at an earlier age then was possible before the WTR program. This enables the child to more clearly see the connection between her own language, the sounds of language and reading, and therefore helps her develop reading as well as writing skills.

IMPACT ON SCHOOL BUDGET AND OTHER RESOURCES

- o School shouldn't have to absorb cost of aide from its budget.
- o Money is spent for this program to do what is supposed to be done for the total school program.

1. I put a lot of extra resources into the program.
2. The program requires lots of school money to support it.
3. Program needs a lot of personnel support by the principal and the staff.
4. We put two aides in the laboratory.
5. It required one FTE.
6. Minor impact - room, furniture, and full-time aide.
7. School shouldn't have to absorb cost of aide from its budget.
8. No impact on the budget.
9. An aide was taken from the regular kindergarten for Writing to Read lab.
10. Over $1,000 school budget used to purchase additional personnel to help support orientation of WTR program.
11. Every school should be provided an aide, not out of school budget.
12. Used our own aide resources.
13. We had to pull out first grade aide, which hindered the first grade program.
14. It took an aide away from the homerooms to work in the lab.
15. We should have had one more aide.
16. We paid for an aide out of school money.
17. We brought in other resources, as well as the aide.
18. Needs three adults, especially the first three months.
19. It was a huge impact.
20. It has tied-up classrooms.

21. Schools suffered when they didn't have an aide to put in the program.
22. Money is spent for this program to do what is supposed to be done for the total school program.
23. We will purchase other programs for the computer because we need something in addition.
24. Repairs and maintenance.
25. Aides should be budgeted separately.
26. Equipment and supplies.
27. There is an important demand on instructional time.
28. With cutbacks we could lose the program because of requiring an aide.
29. We had been promised aides for the labs, so this is a thorn in the side.

QUALITY OF SUPPORT SERVICES FROM THE CENTRAL OFFICES

- Karen Welch is very supportive.
- Good support.

- As could as you can expect.
- Support got better as time went on.

- We get two different stories from Curriculum and IBM about how to run the program.
- Too many schools for too few support people in such a large project.

1. Karen Welch is very supportive.
2. Karen Welch was always available.
3. Karen Welch talked with teachers when they needed help.
4. Judy and Karen have done a fine job with in-service and support.
5. Equipment was kept serviceable and running.
6. No problem with computers.
7. Good support.
8. Quality is fine.
9. Curriculum people really tried to help.
10. They were generous in agreeing to talk to parent groups.
11. They did answer calls for information.
12. We told Karen about problems we encountered.
13. Karen said the program was running well at the school.
14. As good as you could expect.
15. Support got better as time went on.

16. They discovered common problems through principals' meetings.
17. Person in Data Processing hasn't seen the program, just calls around.
18. We got two different stories from Curriculum and IBM about how to run the program.
19. Monthly meetings turned into gripe sessions.
20. It's hard to get telephone responses from Curriculum.
21. Curriculum needs to do a better job of in-service.
22. We should find out what should be done before in-servicing.
23. There was a communication gap between what E.T.S. has sent us to evaluate in May, and Curriculum.
24. Teachers and aides should get recognition rather than the occasional administrative visitor.
25. Karen did not have enough time.
26. At the beginning things were not organized (equipment, materials, security of the building, in-service, etc.).
27. Karen was unfamiliar with the new program and had a difficult job trying to monitor all schools.
28. We could have used more on-site visits.
29. Sincere, but not enough personnel to follow-through with promises made.
30. Didn't have time for sit-down sessions with teachers.
31. We had been promised weekly visits, but they couldn't do it.
32. Too many schools for too few support people in such a large project.

CONTRIBUTION OF AIDES TO THE PROGRAM

- o The aide is essential.
- o Aides training is critical.
- o Aide has to follow different teachers' style of teaching for the different classes.

1. Aides are very important.
2. Aides' training is critical.
3. The program would be extremely difficult to run without aides or reliable volunteers.
4. We brought in another aide because we need more help then just one aide.
5. The aide is responsible for running the lab.
6. The aide takes care of all reports, charts, work journals, ect.
7. The coordinator is most important and the lab aide is next.
8. It is mandatory that you use an aide.
9. The aide makes or breaks the program.
10. The aide has to be flexible, bend with the wind.
11. The aide has to be self-directing.
12. The aide is essential.
13. Outstanding, dedicated aide, added to success of our program.
14. The teachers are most important.
15. Teachers can run the lab if the aide is absent.
16. Maybe you should have a certified staff member instead of an aide.
17. We could have a teacher supervising and aides working with the children.
18. Aide has to follow different teachers' styles of teaching for the different classes.

19. Job description is too large for one aide.
20. Aide required to do a tremendous amount of work for a small salary.
21. Aides maintained the physical environment, the equipment and materials, operated the computer stations, and did some clerical tasks regarding the program.
22. A certified teacher with an aide would better serve the needs of WTR.

IMPACT ON TEACHER MORALE

- o Morale improved as the program unfolded.
- o First grade teachers sold on program.

- o Half and half, from gung ho to considering it an extra burden with aides misused.

- o Still feel frustration of being accountable for the total kindergarten curriculum.

1. Positive influence.
2. Teachers want to repeat next year.
3. Morale improved as the program unfolded.
4. First grade teachers sold on program.
5. First grade teachers impressed with students' writing quaility.
6. First grade teachers want it again next year.
7. Teachers have been excited and surprised at the success of our students.
8. Went from initial high to low and back to high.
9. Teachers are proud of themselves now, but weren't two months ago.
10. Morale was not bad.
11. Staff was concerned about the program, but willing to try.
12. Hard for teachers to give up old ways.
13. From negative to positive.
14. No difference.
15. Some teachers interested in the computers as a new tool.
16. This worked the same as any new program.

17. We are concerned about the quality of instructional activities provided after completing all Cycles.
18. High at the beginning, but now frustrated.
19. Half and half, from gung ho to considering it an extra burden, with aides misused.
20. Teachers do not consider it acceptable at kindergarten level.
21. When we are told to do something we go ahead and do it and hope it's good.
22. We are frustrated after completing all activities, there is nothing provided that is structured and prepared already.
23. Still feel frustration of being accountable for the total kindergarten curriculum.
24. Some teachers frustrated with having to instruct the aide as well as the pupils.
25. Frustrated by lack of materials, software, and their own skill.

PUPILS' MANIPULATION OF EQUIPMENT

- o Pupils handle the equipment well.
- o Kids can do it with proper introduction and supervision and positive reinforcement.
- o Not all kindergarten students are mature enough to use equipment.

1. Pupils can work the computer keyboards.
2. Pupils can play the tapes.
3. Pupils can find the tapes they are to play.
4. Pupils can manage the typewriters.
5. Pupils have learned a lot about equipment.
6. No problems mistreating the equipment.
7. Pupils handled the equipment well.
8. Kids can do it with proper introduction and supervision and positive reinforcement.
9. After we changed the way we scheduled pupils at stations, the program became operative.
10. Pupils need skills to manipulate equipment.
11. No real problems other then maturation.
12. An orientation program tc help pupils learn their first one station and then another before starting the program.
13. There was no big problem after equipment was adjusted.
14. We color-coded the equipment.
15. Computer is mechanically slow for bright students.
16. We question the value of the typewriter used extensively.
17. Kids love computers and typewriters.

18. Not all kindergarten students are mature enough to use the equipment.
19. They need training in eye-hand coordination on the machines.
20. Problem is sticky tabs on typewriters.
21. Typewriter was a problem at first.
22. Frustrating more then motivating for a student to have to type a story they have written.

REINFORCEMENT OF STUDENT LEARNING

- o Teachers set up activities that reinforce on Cycle words at each center.
- o We need a good intervention system to adapt the program to student needs.

1. Pupils get reinforcement everyday.
2. The program is very beneficial to students.
3. Computer is interesting and does some reinforcing.
4. Students are picking up other books, reading bulletin boards, and signs, and that is reinforcing what is learned in the lab.
5. Teachers set up activities that reinforce on Cycle words at each center.
6. Children learning to write at an early developmental stage.
7. You have to have some kind of control group to find out how the program is working.
8. Teachers have thought about reading and the continuity into later grades.
9. We need a good intervention system to adapt the program to student needs.
10. It's early to tell at this stage.
11. First grade will use the program the first half of next year, and then we can tell about reinforcement effectivness.
12. Teachers do not spend as much time on drill and practice on sounds of letters, etc. Computer does this reinforcement.
13. An alternative may be necessary for some pupils.
14. Don't know if it's reinforcing.
15. Cycles reinforcing almost too much for advanced students.
16. We developed a diagnostic evaluation for Spring, 1984 and Fall, 1984 to be given to parents and put in the cumulative folder.

17. Motivation to apply what they have picked up in the language arts instruction.
18. Only a few children are hurt by "failure."
19. Students can pass the mastery test and two days later not know it.

PRINCIPALS' COMMENTS CONCERNING WTR AS A SYSTEM

1. Not a year long program.
2. Too many holes in the program.
3. Not suitable at kindergarten level.
4. Problem for some teachers to adjust to.
5. Helpful in kindergarten situation.
6. Deficiencies in the program.
7. Teachers must still teach reading in their classrooms.
8. Program keeps teachers on-task.
9. It is a language experience computer program.
10. The program is designed to meet individual needs.
11. We need to make modifications in the program, especially for low and low average achievers.
12. We will start only first graders next year in the Fall because students need some concepts of words and sounds before they can succeed in this program.
13. Language experience lessons are vital for introducing the concept of writing stories. This must supplement Writing to Read for minimum success.

14. Our kindergarten classes will begin Writing to Read in January.
15. Page by page explanations are not there, but are needed for all but the very brightest child. Work journals are more effective when they are teacher directed.
16. Additional reinforcement games are needed.
17. The game component should be strengthened.
18. Substitutes are definitely needed that know what is going on to maintain continuity when teachers or aides are out.
19. Program takes more then one third of a half-day kindergarten day.
20. Starter sentences are necessary to get students writing.
21. Program structure designed to meet individual needs depends on teachers' ability to implement it.
22. About half and half, those ready are doing well using stories in a neat way.
23. Students who are able, get right into the stories.
24. This is not a full year program.
25. For pupils not ready it's a hinderance.
26. We need page by page explanations.
27. We need materials after kindergarten because there is an extensive gap.
28. We used other ways accompanying Writing to Read to help reach our goals.
29. We could use a regular language approach if the same things were being taught at a slow pace.
30. Teachers stay on track and do what possibly could be done without the materials and computers if we would stay on track.
31. It is basically the same old language experience based program, but it forces the teachers to do it.

32. We must address developing second grade follow-up for the program, so momentum is not lost.
33. Teachers are frustrated with the rigid aspect of an everyday requirement.
34. Some teachers could do the stories very well in their own classroom in a group setting, and not need stations.
35. Computers are an impressive idea for kindergarten and first grade.
36. The program is very time consuming to implement.
37. More reading time in the classroom would have helped.
38. WTR is not a total reading program.
39. Pupils need more instruction in the classroom.
40. There are some problems with using the program as a reading program when it is really a writing program.
41. This program is not compatible at the kindergarten developmental level.
42. If it reaches the claim that IBM has made, that students can write any word in their vocabulary, it will have been an excellent program.
43. The program is not suitable for age 5, but is for age 6 and above.
44. It is not a total language arts program.
45. We have our own adaptation and now it's a good program.
46. Not all kindergarten students are mature enough to use the equipment.
47. One hour is too long for some kindergarten students.
48. Students like the program.
49. The equipment is a key part of the program.
50. Program should start after Christmas, when pupils can be more ready for kindergarten.
51. Pre-skills need to be taught.
52. Use of equipment needs to be taught more extensively then it is now as a part of the program.

53. Program should wait until pupils are ready.
54. Students are not ready for fifteen minute periods with equipment.
55. We had the wrong lab model in changing students every fifteen minutes.
56. The typewriter should not be given the importance of a center.
57. The teachers forced to use the program everyday.
58. The term failure should not be used by the computer.
59. We need post activities to follow-up the programs.
60. Next year kindergarten will not be brought in until mid-year.
61. Pupils should have had some introduction to recognition of letters before starting the program.
62. Pupils who are not ready for the lessons were not helped.
63. WTR was generally perceived as most effective when used as a supplement to classroom instruction, and did reinforce student learning.
64. Requirements of the program are irritating.
65. An asset to the school program.
66. Teachers should be able to make choices and have alternatives.
67. The weakness at both ends of the program.
68. Some pupils are ready and finish early and need additional activities.
69. Should also promote love of learning and enjoyment of school.
70. Will benefit students in developing writing skills in later years.
71. It really is strictly a writing and language program instead of a reading program, as has been advertised.
72. We need more adult help in each session.
73. We need to get good data to know if WTR program is working right.
74. Teachers and aides know more about the program then IBM experts.
75. Not every kindergarten student should be mandated to use WTR.

76. Teachers' positive or negative attitudes determine whether program will work.
77. Teachers serve as managers, motivate students, and contribute valuable ideas.
78. The aide is the greatest resource in the program.
79. A coordinator is definitely needed for WTR.
80. Ideally the program should have two aides.
81. They should alter the job description of the aide to suit different schools.
82. Use more flexibility.

MISCELLANEOUS COMMENTS ON WRITING TO READ BY PRINCIPALS

1. We must keep the trained staff we have instead of R.I.F.ing them.
2. We will lose our aide to the pool and that is not sensible.
3. It cripples a program like this to lose trained staff.
4. Central office doesn't seem to understand that there will be gripes about any new program.
5. We must not R.I.F. aides who are in the program now.
6. Statements about a pilot group in Washington D.C. or Florida are not sufficient for making decisions about our program.
7. The Curriculum Department, Schools, Evaluation Department, and Data Processing need to work together to make this program work.
8. Curriculum needs a better grasp of other WTR programs that are working.
9. We were irked by the way principals, teachers, and aides were addressed in different ways, since aides and teachers make the program go.
10. Unfortunate that it took so long to get underway.
11. Need follow-up of computer use to extend learning, not cutoff use of the computer when they finish the program.

12. Students are disciplined immediately in a consistent manner for any misuse of the equipment.
13. Some students' social skills need attention.
14. Routines such as starting and stopping time need to be set.
15. Careful orientation prior to start of program, and planning ahead for these needs enables students to function in the lab, but not at WTR level altogether.
16. The program does a good job of English as a second language.
17. I hope IBM will listen to the list of needed changes Karen has.
18. First graders received only 50 minutes per day of formal reading, spelling, and language skills.
19. We will see how it follows-through.
20. With our regularly adopted materials and WTR we are developing many of the foundation skills (expressive language, motor development, sensory development, etc.), and a large percentage of students are having success in learning.
21. We had to take the information as gospel, pie in the sky, at first.
22. Parents not as concerned as teachers would lead you to believe over phonetic spelling.
23. Good teachers could do the same thing if they would or if they had this level of support and aide assistance.
24. The program forces teachers to have students do better in the classroom.
25. Parental support is very important.
26. Parents were invited to go through a day in the lab with their child.
27. Some parents, whose pupils are not on the computer, are upset.
28. Staff wants to use the IBM computers themselves.
29. The staff accepts what's given to them expecting it to be good.

30. Pupils just started writing in April.
31. Teachers need encouragement to be flexible and creative.
32. After the first steps, kids are on their own, but teachers didn't know that.
33. This year it's been the blind leading the blind with a lot wasted time.
34. Other kids are learning Basic and Logo when computers are not used in the lab.
35. Computers used for special education classes and a few second grade pupils.
36. There is much to be desired in equipment and materials.
37. We should have been warned of all the software and materials that cost us from our school budget.
38. It would help if each school were given a WTR budget.
39. No focus on vowels in the main adoption.
40. We feel it's a good program.
41. We get all the new programs that come our way.
42. We had four new adoptions this year - too many.
43. We were promised more classroom help.

SUMMARY OF PRINCIPALS' COMMENTS ON WTR AS SYSTEM

1. Program suitable for some, but far from all kindergarten (age 5) students. Concern for those not ready.

2. The program by no means is adequate for an entire reading program. It needs to be supplemented by other language and reading experiences.

3. The program consumes too much time, especially in view of its failure to meet all requirements of a full reading program.

4. Same lessons put in a non-computer, non-workstation, less structured instructional setting could be quite valuable.

5. Inflexibility of the program is damaging to teachers' abilit/ to meet individual differences in maturation, ability, and interest.

6. The program keeps teachers on task! If they could be kept 'on task' using other methods they'd probably get better results than with this program.

7. When principals and teachers make local adaptations, the programs can be made valuable.

8. Other problems cited include:

   a. Modifications needed for low and high students.

   b. Page-by-page explanations needed by most children.

c. Additional reinforcement games needed.

d. "Starter sentences" needed to get students writing.

e. Not a full-year program.

f. Materials "after kindergarten" ("after grade one") needed.

g. One hour too long for some kindergarten students.

h. Pre-skills need to be taught.

i. The typewriter should not be given the "importance of a center".

j. The word failure should not be used by the computer.

k. Need post-activities to follow up the programs.

l. Students who finish early need additional activities.

m. Need more adult help each session.

Miscellaneous Comments by Principals

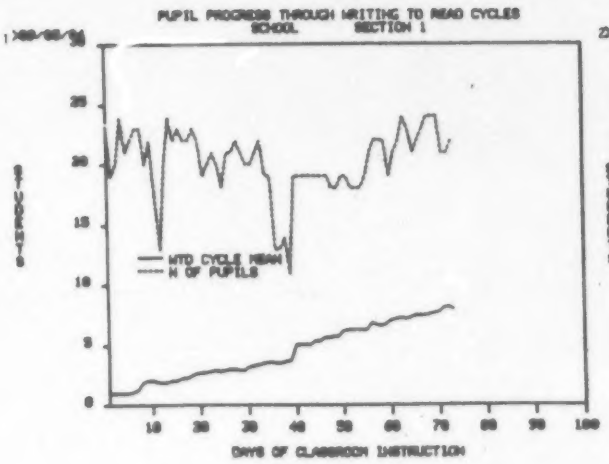
1. We should not expect new programs to be perfect, to be used exactly as they come, to be implemented without change or trouble.

2. This program is costly, requires new personnel that should be dealt with fairly if the program is not continued, takes more of our budgets than we were led to believe.

3. Something good can come from this experience if we all work together to see that it happens. There are lots of little changes that need to be made.

APPENDIX D:

- Classroom Graphs of Progress Through Cycles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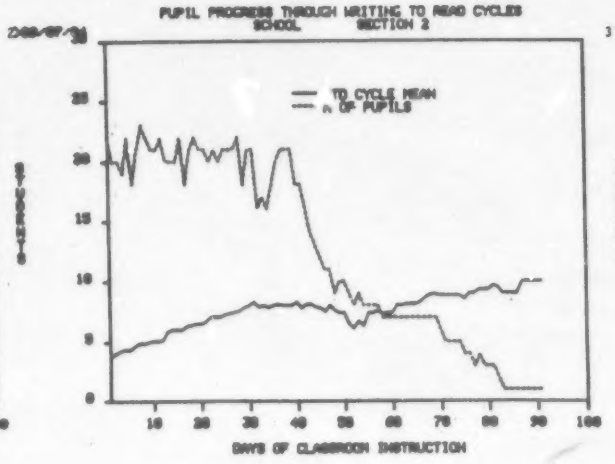

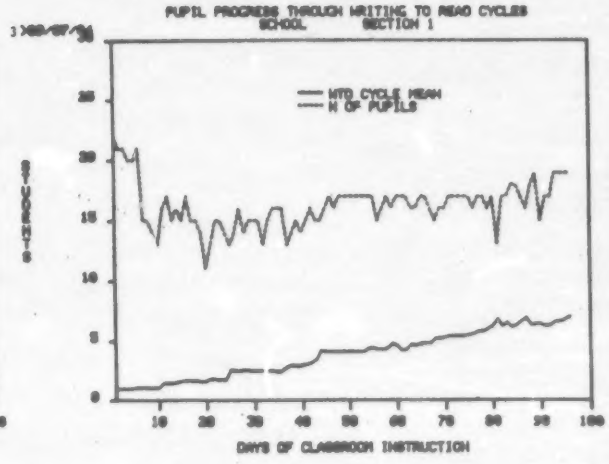
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DAYS OF CLASSROOM INSTRUCTION

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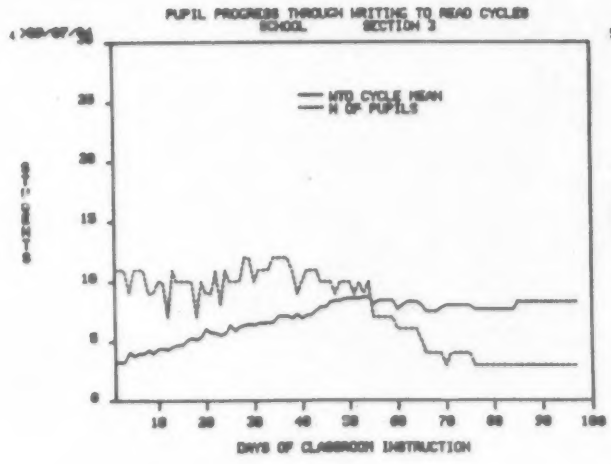
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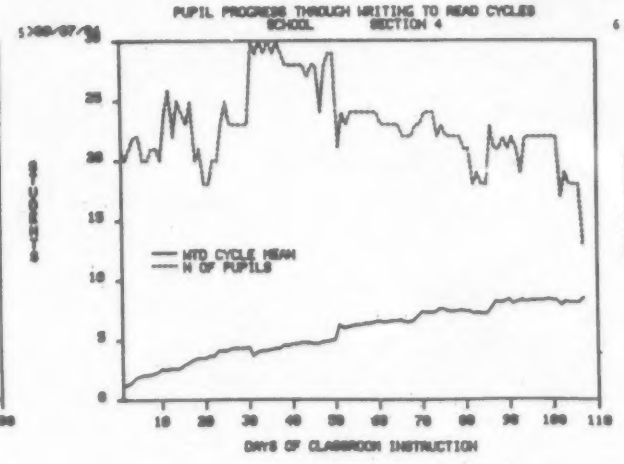
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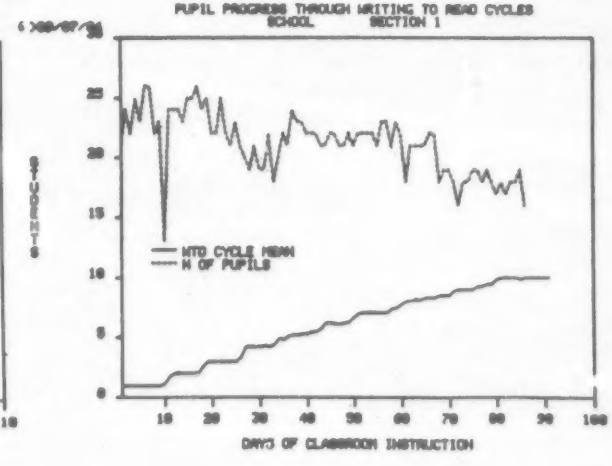
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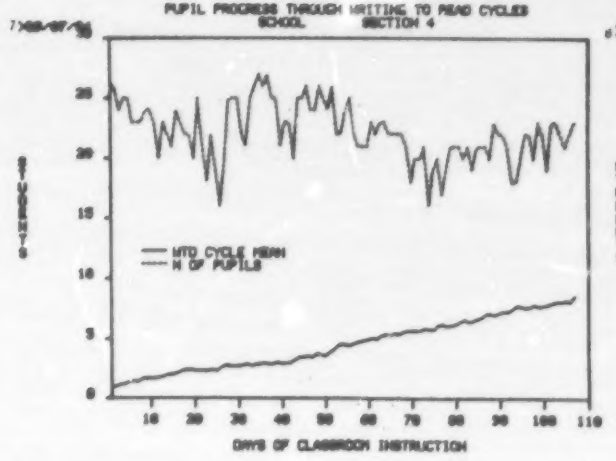
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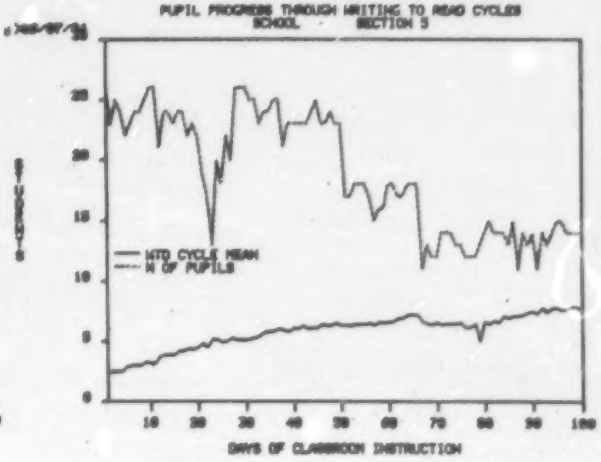
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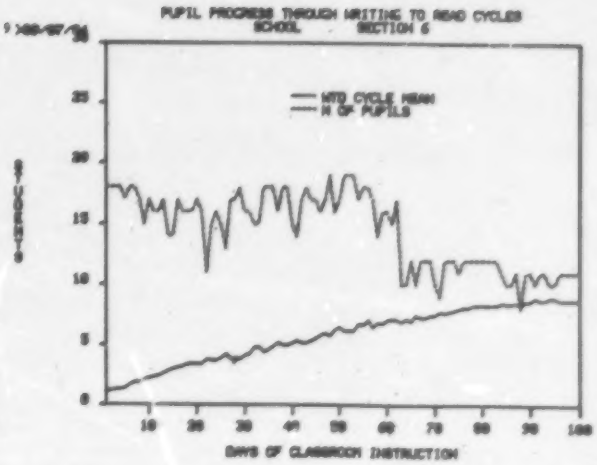
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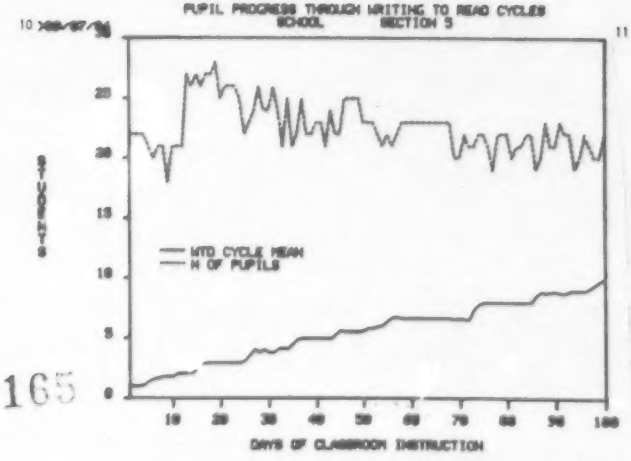
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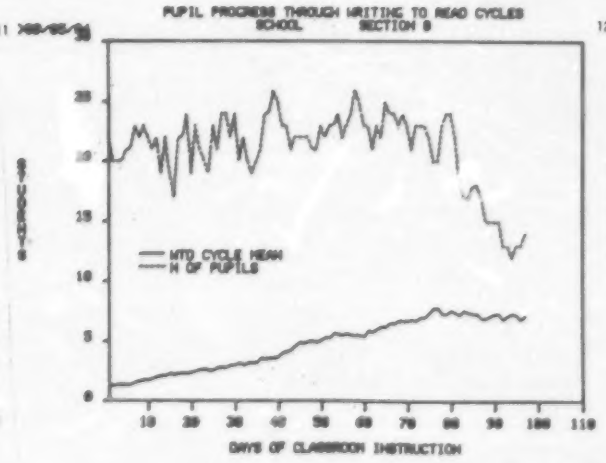
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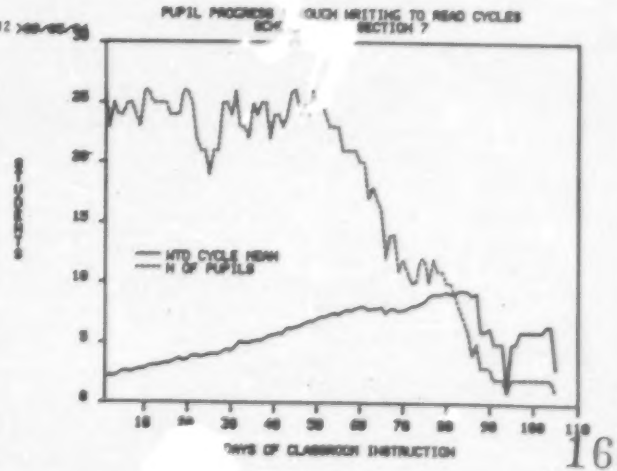

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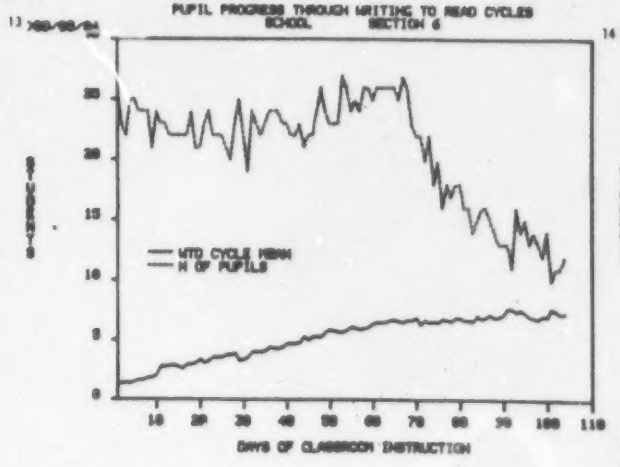
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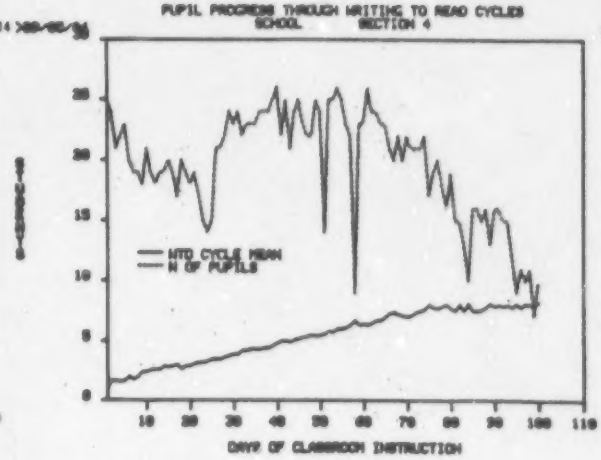
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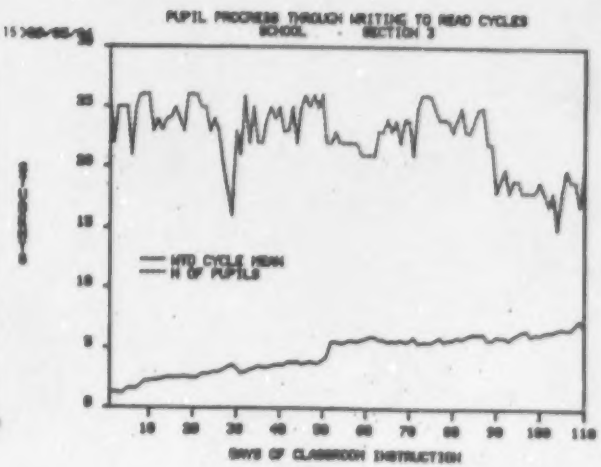
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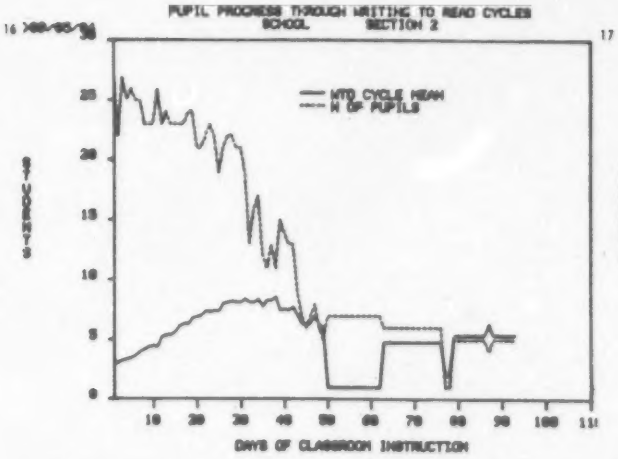
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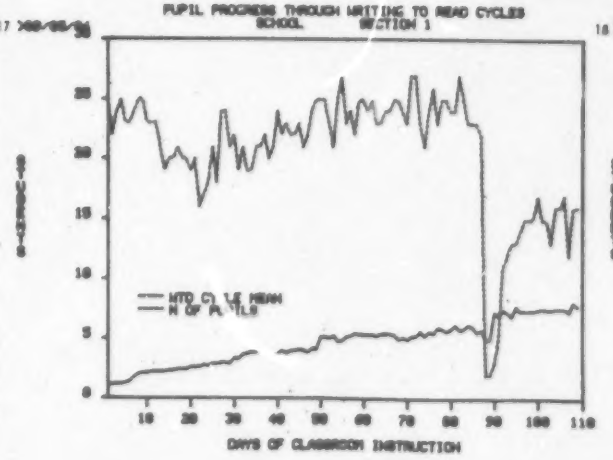

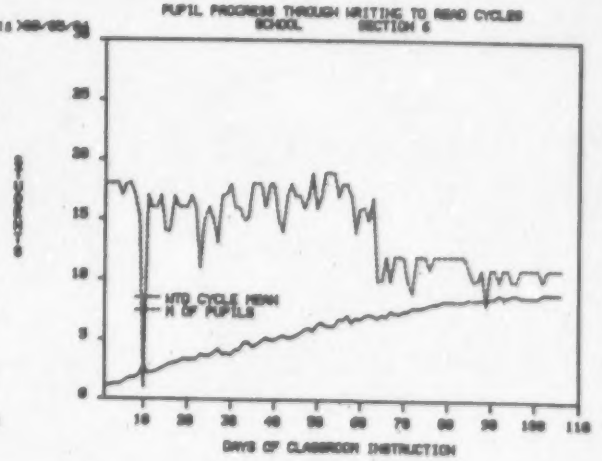
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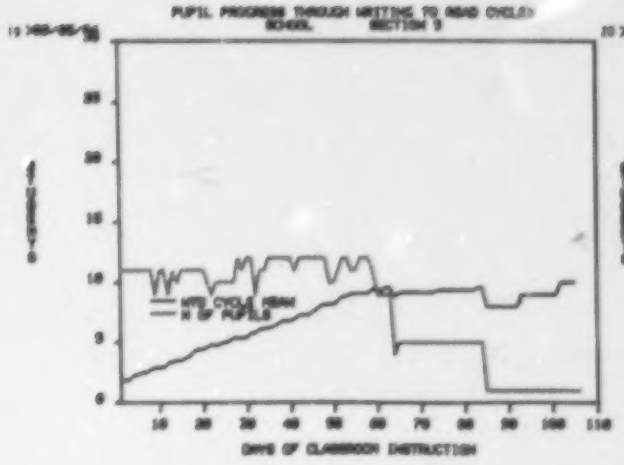
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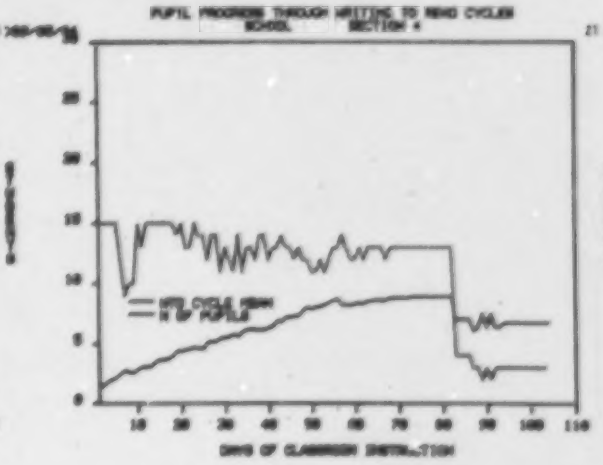
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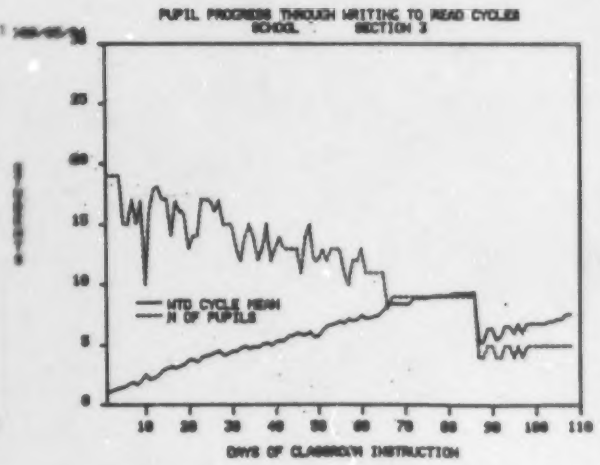
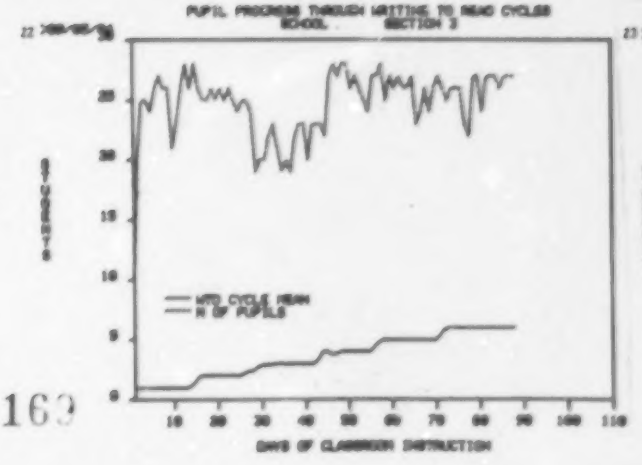
N OF PUPILS
DAYS OF CLASSROOM INSTRUCTION


PUPIL PROGRESS THROUGH WRITING TO READ CYCLES
SCHOOL SECTION 3
MTD CYCLE MEAN
N OF PUPILS
DAYS OF CLASSROOM INSTRUCTION

151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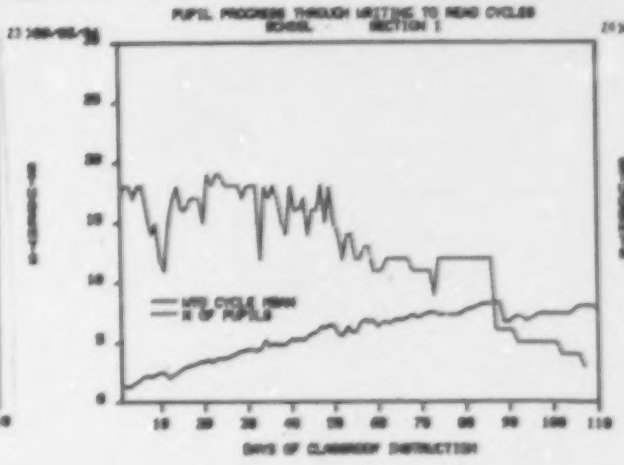
MTD CYCLE MEAN
N OF PUPILS
DAYS OF CLASSROOM INSTRUCTION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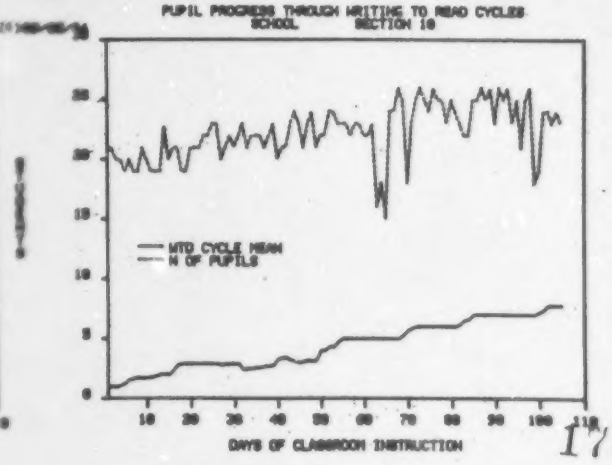
MTD CYCLE MEAN
N OF PUPILS
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
N OF PUPILS
DAYS OF CLASSROOM INSTRUCTION

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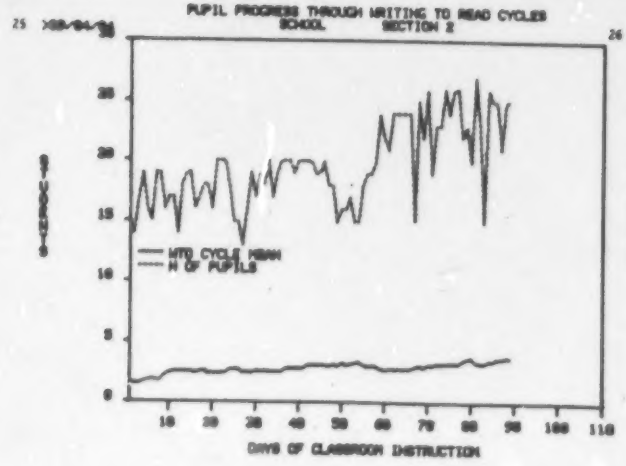
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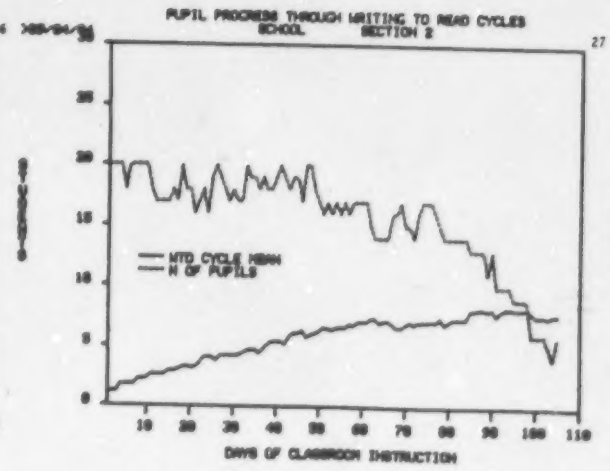
DAYS OF CLASSROOM INSTRUCTION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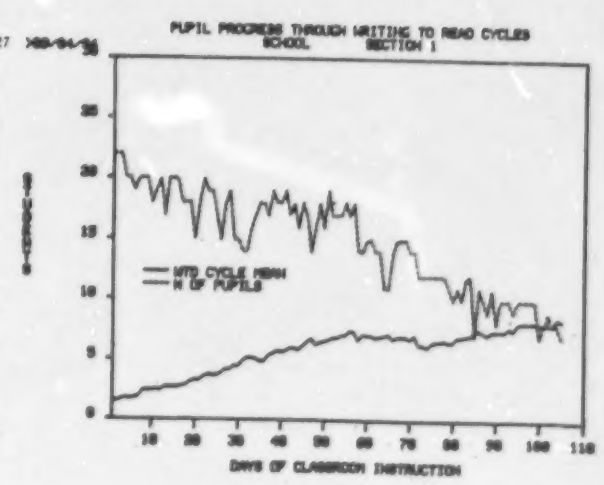
DAYS OF CLASSROOM INSTRUCTION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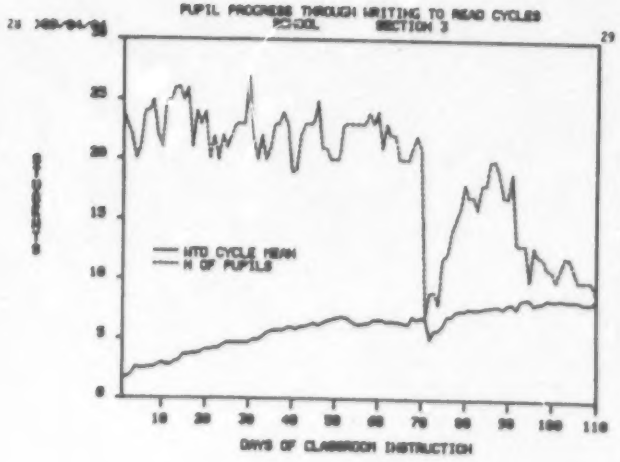
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
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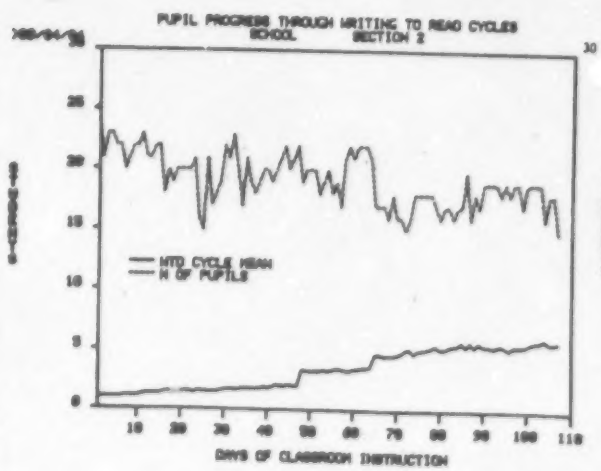
DAYS OF CLASSROOM INSTRUCTION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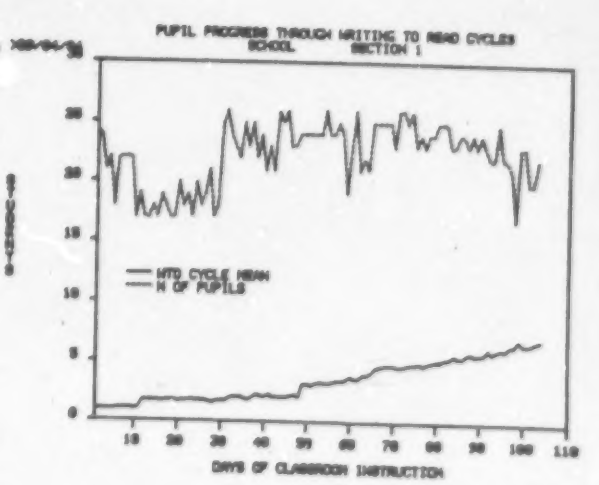
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
N OF PUPILS
DAYS OF CLASSROOM INSTRUCTION

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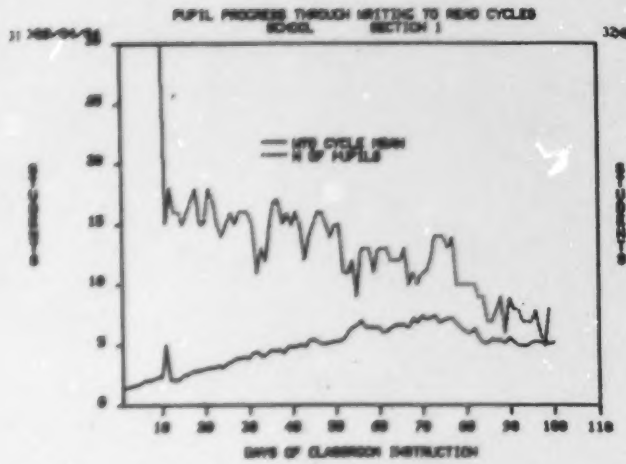
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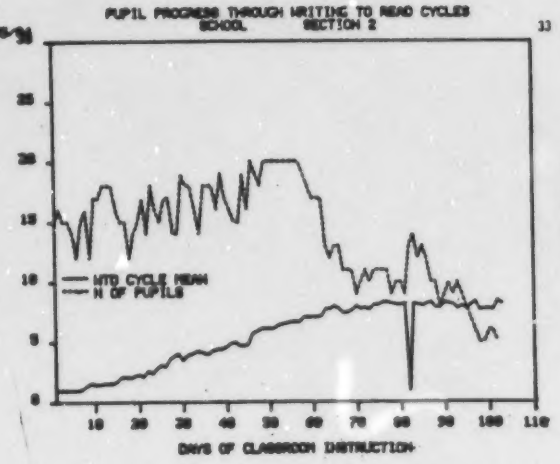
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
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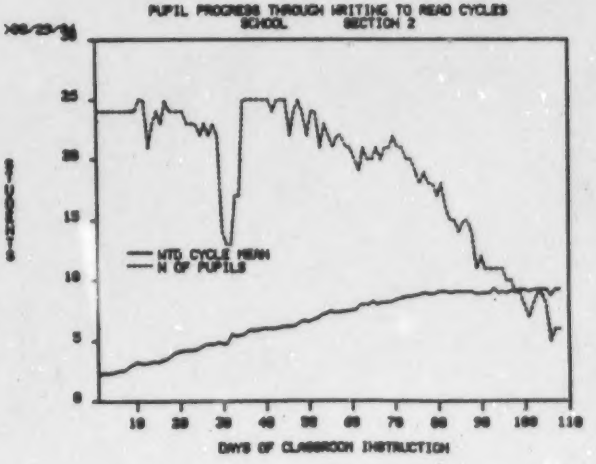
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
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DAYS OF CLASSROOM INSTRUCTION

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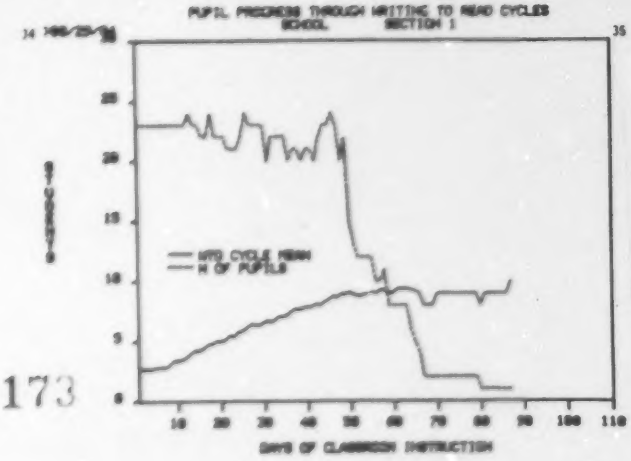
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MTD CYCLE MEAN
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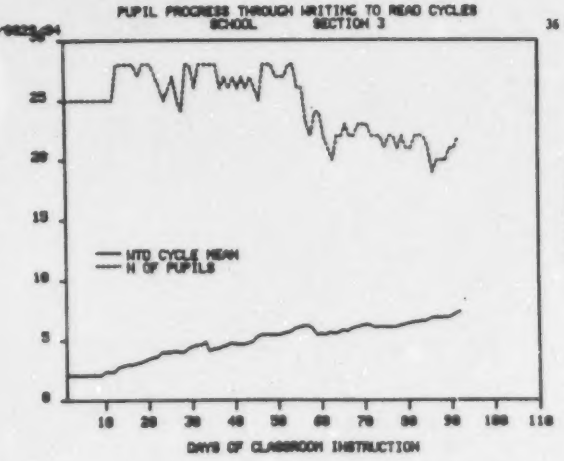
DAYS OF CLASSROOM INSTRUCTION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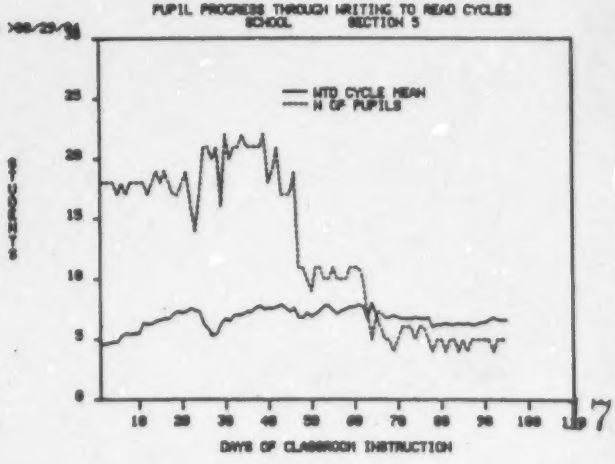
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
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DAYS OF CLASSROOM INSTRUCTION

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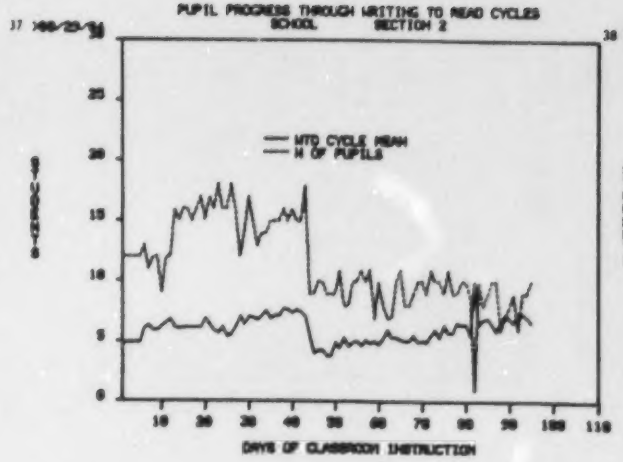
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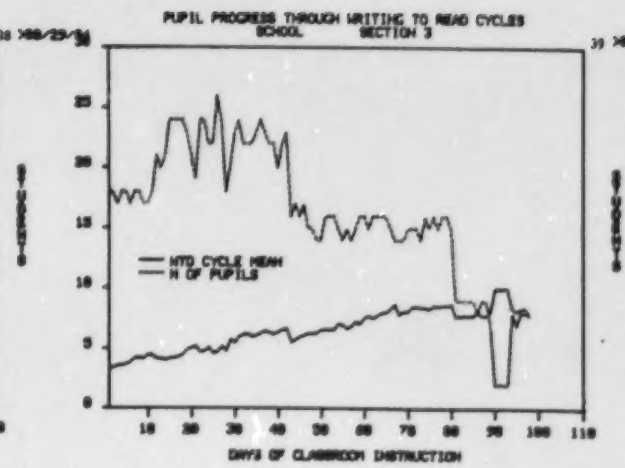
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
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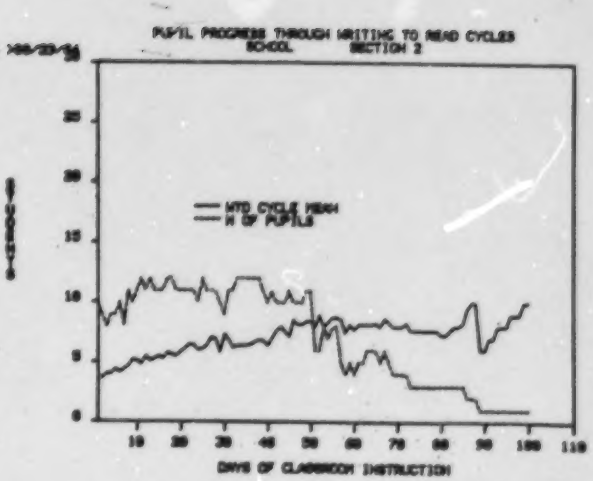
DAYS OF CLASSROOM INSTRUCTION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DAYS OF CLASSROOM INSTRUCTION

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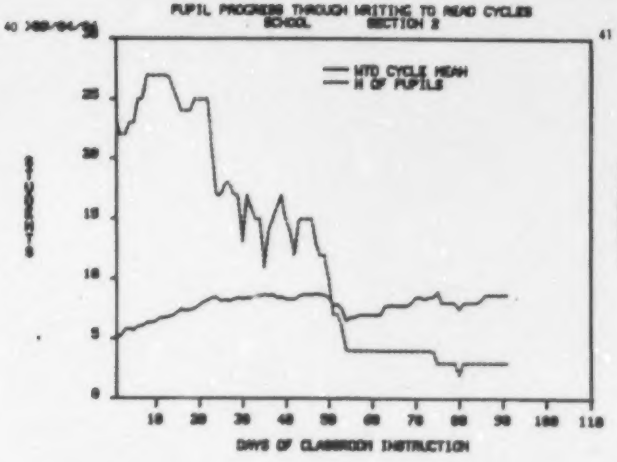
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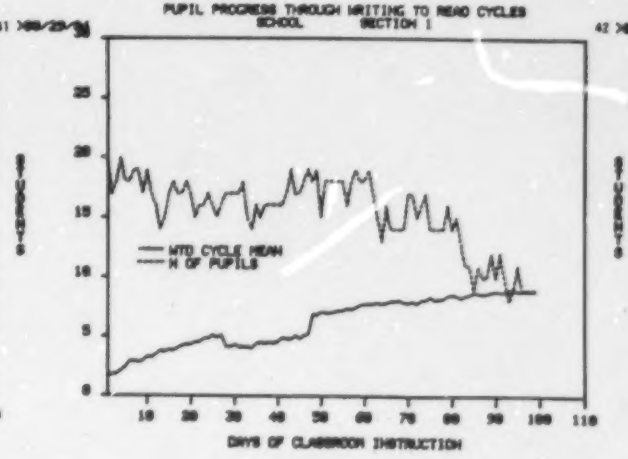
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
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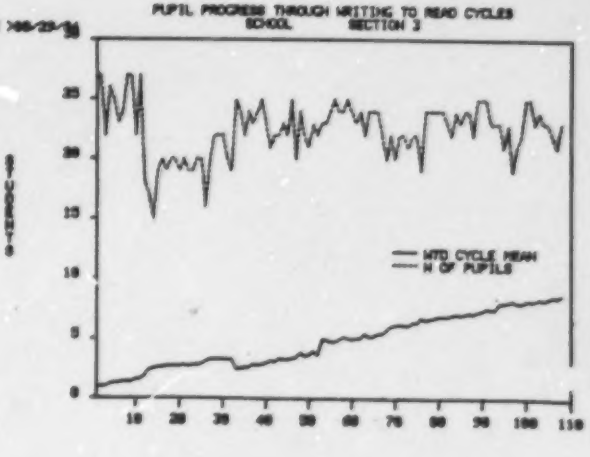
DAYS OF CLASSROOM INSTRUCTION



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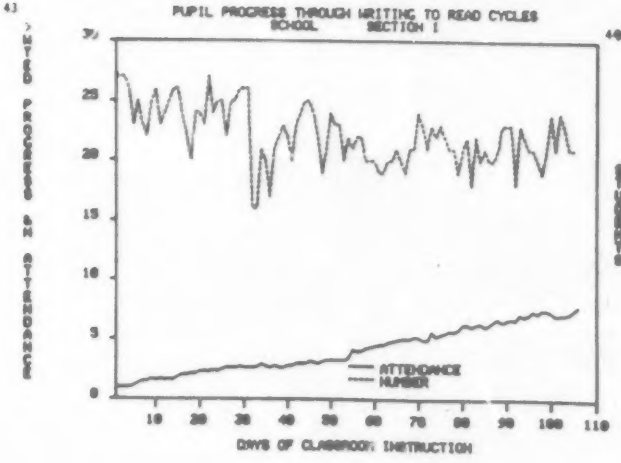

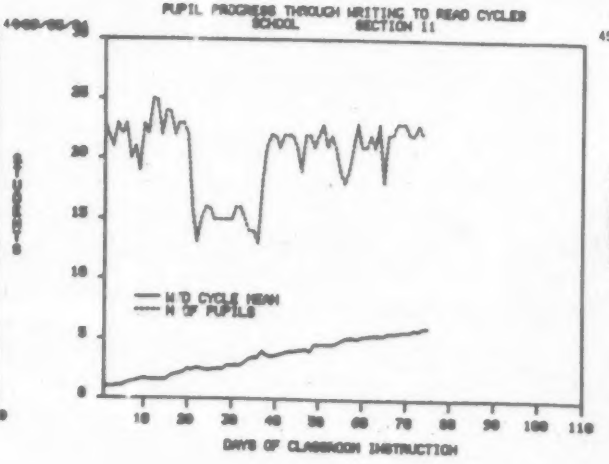
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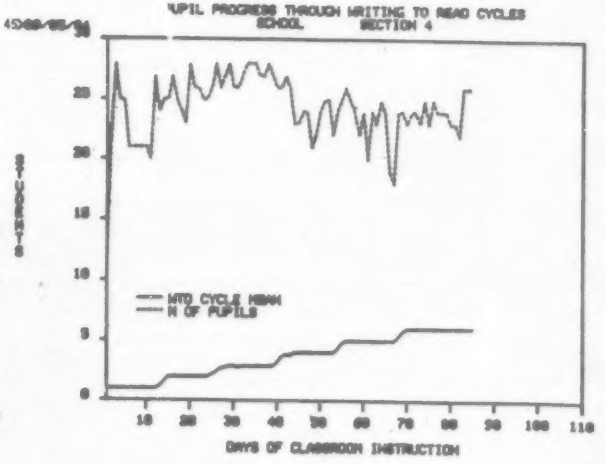
DAYS OF CLASSROOM INSTRUCTION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DAYS OF CLASSROOM INSTRUCTION

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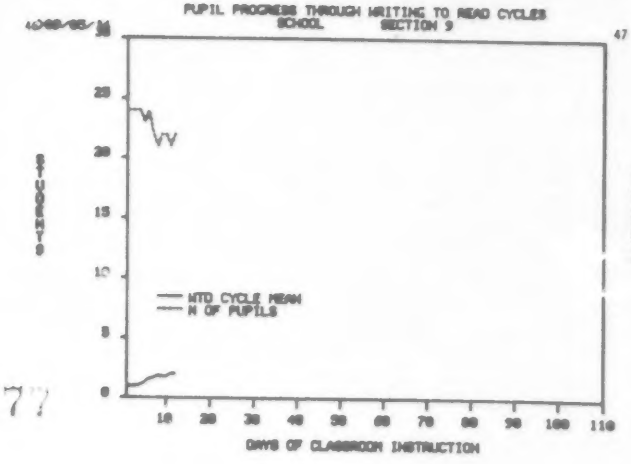
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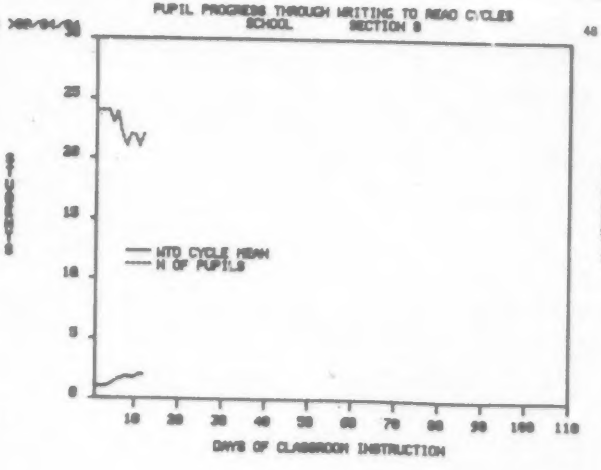
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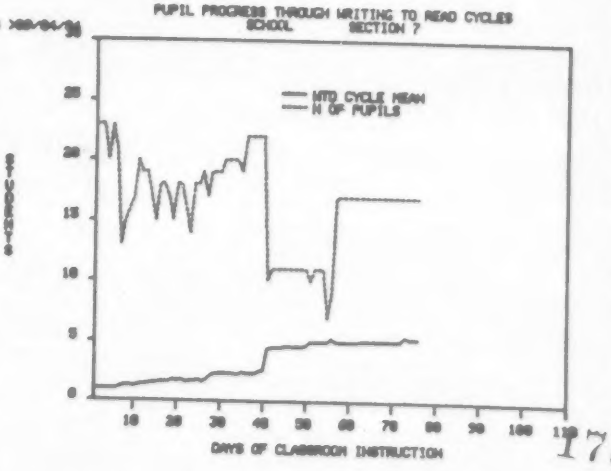
DAYS OF CLASSROOM INSTRUCTION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DAYS OF CLASSROOM INSTRUCTION

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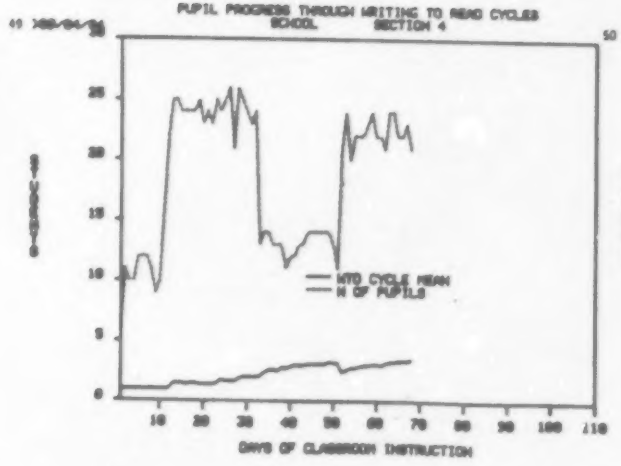
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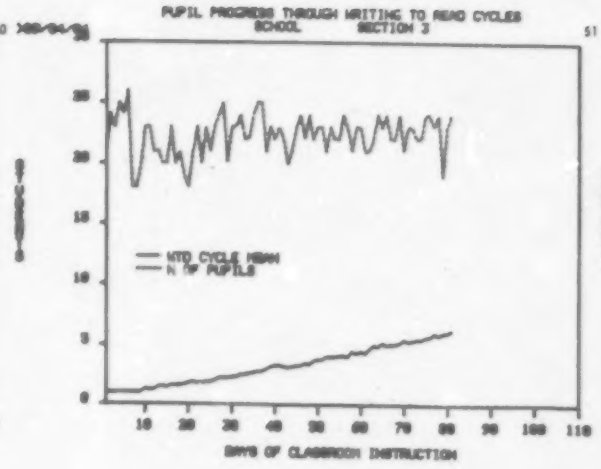
DAYS OF CLASSROOM INSTRUCTION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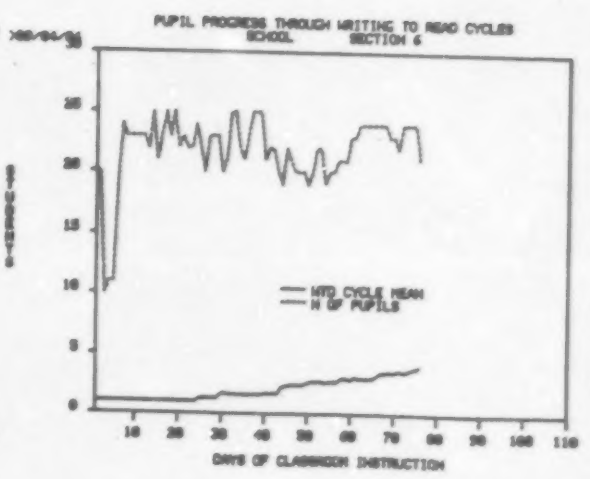
DAYS OF CLASSROOM INSTRUCTION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DAYS OF CLASSROOM INSTRUCTION

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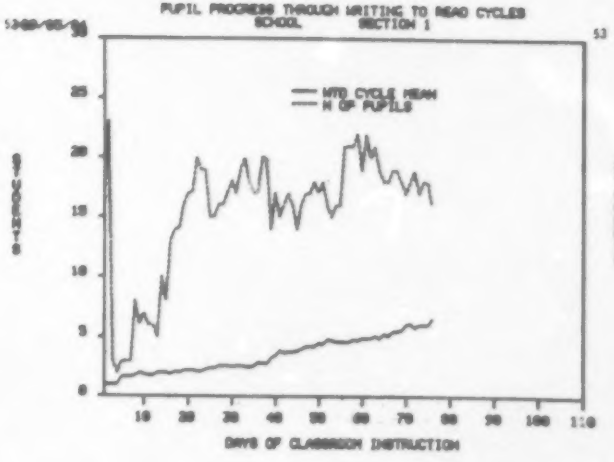
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MTD CYCLE MEAN
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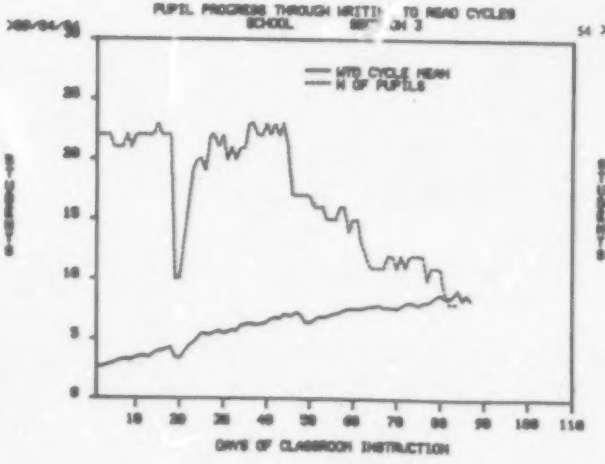
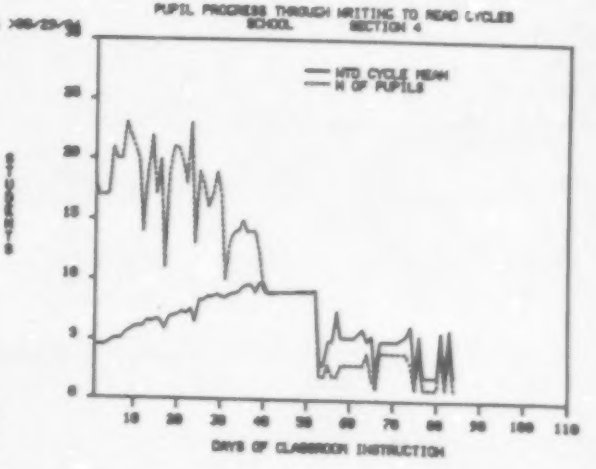
DAYS OF CLASSROOM INSTRUCTION

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SCHOOL SECTION 4
MTD CYCLE MEAN
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DAYS OF CLASSROOM INSTRUCTION

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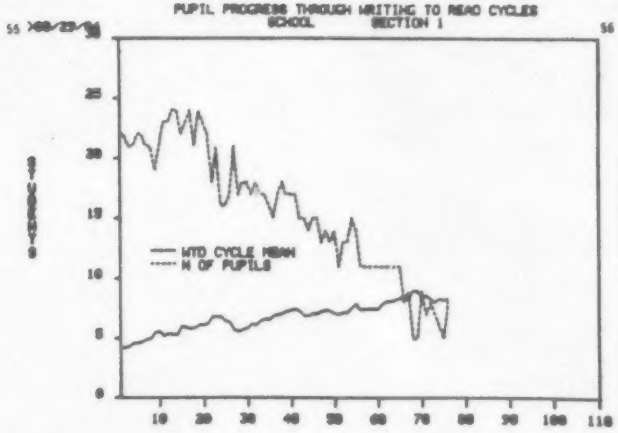

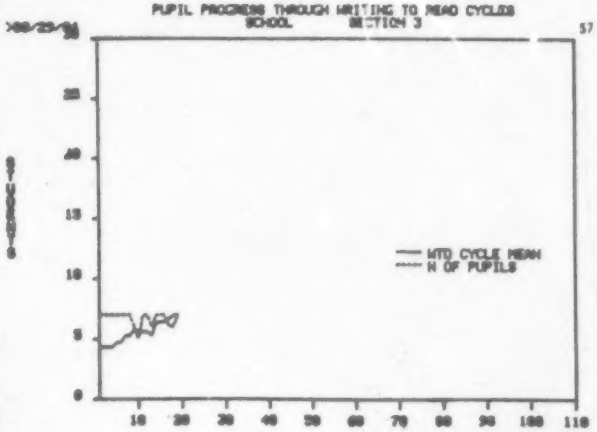

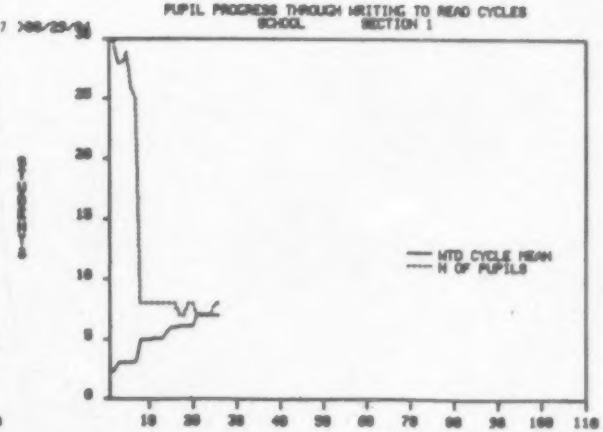

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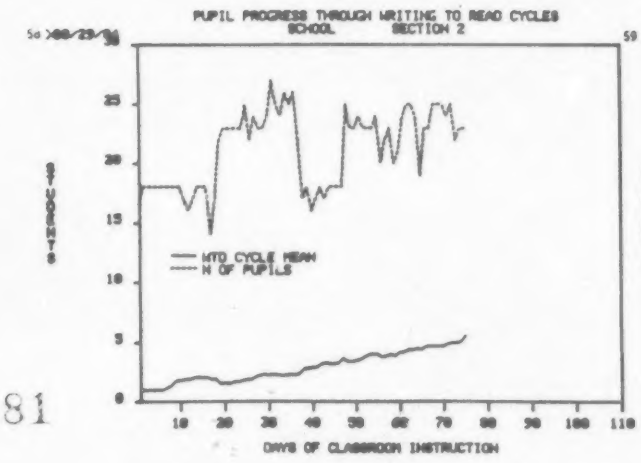
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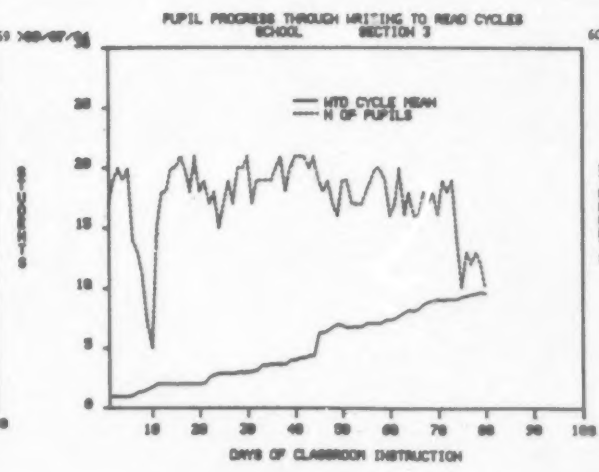
SCHOOL SECTION 2
MTD CYCLE MEAN
N OF PUPILS
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
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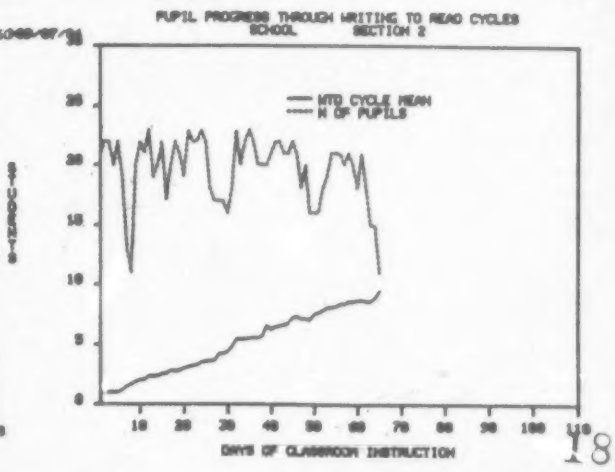
DAYS OF CLASSROOM INSTRUCTION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MTD CYCLE MEAN
N OF PUPILS
DAYS OF CLASSROOM INSTRUCTION

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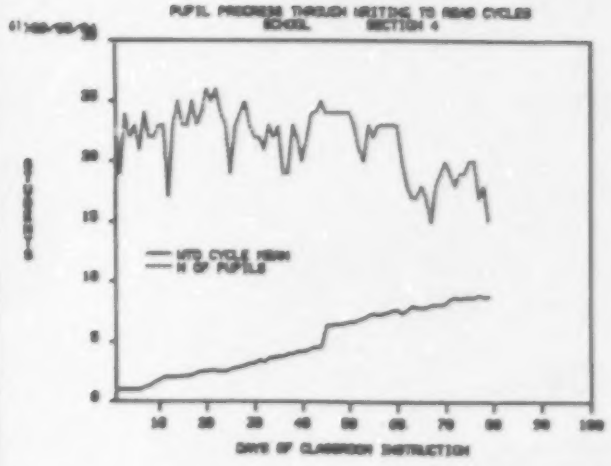
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STD CYCLE FINISH
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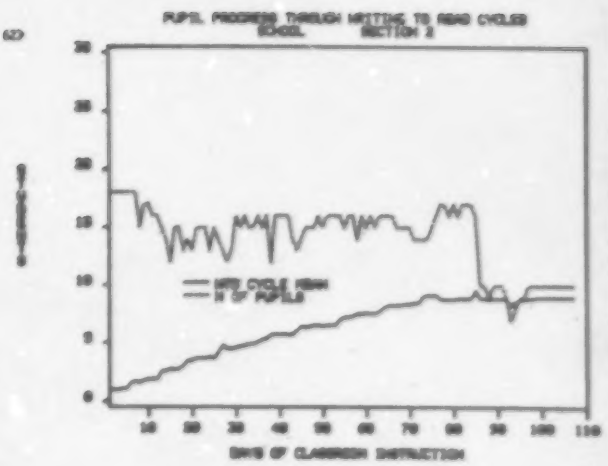
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STD CYCLE FINISH
OF PUPILS
DAYS OF CLASSROOM INSTRUCTION

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